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Narrative Plausibility: The Impact of Sequence and Anchoring

David V. Canter, Ph.D., F.A.P.A., F.B.Ps.S.,
C.Psychol.,* Nicola Grieve, M.Sc., Catherine
Nicol, M.Sc., and Kelly Benneworth, M.Sc.

The perceived plausibility of suspect narratives is hypothesized to be a product of more than logical evaluation. Aspects of the narrative's internal structure, notably the extent to which it follows a canonical (or stereotypical) sequence of events, may influence judged plausibility. Plausibility may also be sensitive to external "anchors" that activate relevant schema. To test these possibilities, variations of two suspect testimonies were created in accordance with the model by Stein and Glenn (1979) of a stereotypical story grammar, and the account by Wagenaar, van Koppen, and Crombag (1993) of narrative anchoring. Subjects rated the narrative account using a perceived plausibility scale developed from pilot work. ANOVA revealed that criminal anchoring in suspect statements, regardless of the crime scenario, has a negative effect on the plausibility level. Similarly, plausibility levels were lower when the statement did not follow a temporal sequence of events. The implications for models of how people judge plausibility are discussed, as are the practical implications for legal contexts. Copyright © 2003 John Wiley & Sons, Ltd.

There are many situations in which judgements of plausibility are made, ranging from casual conversation to evidence heard in court during a criminal trial. Although many of these judgements may be based on the logic of the account that is heard, and the evidence it contains, it is possible that other cognitive processes are involved. When accounts take the form of narratives, "descriptions of connected events in order of happening" (Allen, 1969, p. 488), it is possible that the judgement of plausibility derives from cognitive schema of the form and content a trustworthy story should have.

Schemata for stories have been identified to explain how people comprehend and remember spoken and written stories. For juries in particular, it has been argued,

*Correspondence to: David V. Canter, Centre for Investigative Psychology, Department of Psychology, The University of Liverpool, Liverpool L69 7ZA, U.K. E-mail: canter@liv.ac.uk
Professor Canter directs the Centre for Investigative Psychology, University of Liverpool. Nicola Grieve is a graduate of the M.Sc. Investigative Psychology and is currently a researcher within the Centre for Investigative Psychology. Catherine Nicol and Kelly Benneworth are graduates of the M.Sc. Investigative Psychology.

sense is made of the evidence by constructing “their own stories of the case” (Wiener, Richmond, Seib, Rauch, & Hackney, 2002, p. 120). Further light may therefore be shed on the processes that influence how plausible any story on offer may be by examining the schemata on which people may draw and the constituents of those schemata that may be most influential in assessing how plausible a story is likely to be.

The constituents identified for such schemata usually consist of a typical internal structure that a story is expected to have (Singer, 1990). These structures have been elaborated as story grammars, for example by Thorndyke (1977). Following Rumelhart (1975), it is claimed that typical stories have a set of components that have a predictable sequence to them [Story + Setting + Theme + Plot + Resolution]. This structure is seen to exist independently of its linguistic content. Thorndyke (1977) found that the existence of this structure facilitated understanding and recall of stories. The more an incoming text failed to match up with a standard, well learned, structural hierarchy of goal-directed episode sequences, the lower its comprehensibility and recall.

Other studies have also shown that story comprehension is facilitated when stories are told in an order compatible with the standard sequence. Schwartz and Flamer (1981) examined peoples’ memory for different versions of a story. In the normal version, the stories were told in the sequence [Story + Setting + Theme + Plot + Resolution]. In a second version the theme of the story was moved to the end, and in a third version the story sentences were completely randomized. Consistent with story grammar analysis, people recalled the greatest number of story propositions when the story was presented in the original as opposed to the randomized version.

Although models of story grammar are useful in developing an understanding of story comprehension, crucial problems have been identified. One is that the models provide only a simple characterization of a small class of discourses, namely single goal, single protagonist stories (Thorndyke, 1977). In light of this, other approaches to the representation of narrative information (such as Labov, 1972) have been drawn on to broaden these simple models to cover more complex event sequences and naturally occurring prose materials, that is, to *narratives* as opposed to *stories*.

Using an empirical, linguistic approach, Labov (1972) established a model of narrative structure generated from informal oral narratives from New York, Black English vernacular culture. In this model, a six-part structure of a fully formed narrative is proposed (see Table 1).

Labov (1972) proposes that these six narrative clauses are temporally ordered, occurring in a fixed canonical sequence. This sequence provides meaning for the narrative, hence a change in the sequence of the clauses will result in a change in the meaning of the narrative (Labov, 1972). Caron (1992) explains the power of this

Table 1. Canonical narrative structure, from Labov (1972)

Narrative clause	Description
Abstract	Initial summary of the story
Orientation	Time, place, persons involved, situation, and activities involved in the story
Complicating action	Central main event, the point of interest, and the behavioural reaction associated with this event
Evaluation	Attitude of the narrator and the importance of the complicating action
Resolution	The outcome of the complicating action
Coda	Bridging the gap between the narrative and the present time

Table 2. The narrative structure of Stein and Glenn (1979)

Narrative clause	Description
Setting	
Abstract	Summary of the actions to come, sets the tone of the account
Setting	Immediate physical, social, and temporal context pertaining to the development of the episode
Episode	
Initiating event	Disruption in the initial equilibrium, key event on which narrative episode focuses evoking response from protagonist
Attempt	Overt actions to achieve goal prompted by the initiating events
Consequence	Subsequent success or failure of the attempt, attainment or nonattainment of goal
Reaction	Expression of protagonist's feelings about the goal attainment, provides an evaluation of the consequence

sequence by claiming it accords “with our knowledge of the normal order of things in the world in which we live” (Caron, 1992, p. 162). A narrative structured according to Labov’s (1972) model will possess a sequence that relates to this “normal order” and will thus correspond to relevant activated schema of similar known events. It will therefore be easier to comprehend and remember than a narrative that is not structured in this way (Robinson & Hawpe, 1986).

Following criticism that Labov’s structure of temporal components did not allow for individual accounts of behavioural reactions (Edwards, 1997) and of the event itself in the complicating action component, Stein and Glenn (1979) constructed a revised model of Labov’s original structure. The model suggested that the “complicating action” should be divided into more components that are comparable. Consequently Stein and Glenn proposed a model, which encompassed a setting and an episode component (Table 2).

The question therefore arises as to whether judgements of the plausibility of a narrative will be influenced by similar processes. If people have a schema of what the canonical sequence of a narrative should be, do they draw on this to judge whether an account is suspect because it does not accord with their expectations? The assumption here is that, just as the narrative schema provides a basis for remembering a story, it also provides a form of sequence template against which “true” stories are compared. Accounts that are seen to deviate from this template would therefore be hypothesized to be regarded as less plausible. Pennington and Hastie (1986) explored the influence of temporality on the perception of truth in a fictitious murder trial. The prosecution and defence lawyers presented a mock jury with identical information in either a chronological or randomized order. It was found that testimonies presented in a random order, particularly by the defence lawyer, were disbelieved, whereas testimonies that were recalled in the same order as the experience were found more coherent and plausible.

NARRATIVE STRUCTURE AND CRIMINAL ANCHORING

A narrative’s structure is an aspect of its *internal* organization that is independent of its context or its particular content. There are, however, also likely to be *external*

factors that the narrative may connect with that can provide a basis for judging plausibility. Wagenaar *et al.* (1993) identified these external connections as “anchors”, claiming they were of great importance in determining “the plausibility of the stories presented by the prosecution and defence” (Wagenaar *et al.*, 1993, p. 33). They described “anchors” as common-sense rules that are generally expected to be true. Anchors often take the form of unquestioned assumptions about how people behave in certain situations. In the case of suspect testimonies, these assumptions may be stereotypes that anchor the narratives in question to commonly held perceptions of criminality, for example “once a thief always a thief” and “drug abusers are always thieves” (Wagenaar, 1995).

Wagenaar’s interesting claims have not been subject to systematic empirical test, but have been argued from example. Nor has the power of such external aspects of narratives been compared with the internal constituents that may derive from the narrative’s structure. It is therefore appropriate to include anchors as a treatment condition in experiments that also explore the effects of narrative sequence. The combination of both internal and external constituents of narratives in one experimental design provides the basis for a model of the processes that underlie judgements of narrative plausibility.

PILOT STUDY

Method

In order to test the feasibility of using an experimental approach in a domain that has previously relied mainly on qualitative research, and to develop a quantitative measure of plausibility, a pilot study was carried out.

Participants

A total of 80 (60 female and 20 male) undergraduate students from the University of Liverpool volunteered to participate in the study. The mean age of participants was 22 years of age and the range was between 18 and 35 years.

Procedure

Two fictional suspect testimonies, one for a homicide and one for a burglary scenario, were created using the model by Stein and Glenn (1979) of narrative structure. Both statements were based on genuine testimonies, but the stimuli were artificially assembled to guarantee the inclusion of events representing all of the narrative clauses present in the model: abstract, setting, initiating event, attempt, consequence, and reaction.

In the first version of these statements, the narrative clauses were presented in the order specified by the model of Stein and Glenn (1979). In a second version, the sentences corresponding to each clause were presented in reverse order (i.e. reaction, consequence, attempt, initiating event, setting, and abstract) but were otherwise unchanged. Care was taken to ensure that the statements were still

syntactically correct following the rearrangement so that both accounts were linguistically appropriate.

In a third version of these statements, a “criminal anchor” was incorporated into the narrative. In the burglary scenario, the narrative abstract was altered from “it was nothing to do with me, I have never been in trouble before” to “it was nothing to do with me, I’ve been in trouble for burglary before and would never get involved again”. This introduced the anchor of “once a thief always a thief” stipulated by Wagenaar (1995). The anchor in the burglary scenario seemed quite obvious therefore a more subtle manipulation was introduced for the homicide scenario in order to examine determine whether it was still powerful when it was not so obvious. In the homicide scenario, the setting of the narrative was changed from “it happened late on Tuesday evening when me and my mate were coming home from work” to “it happened late on Tuesday evening when me and my mate were coming home from the pub”. This was thought to inspire a stereotypical notion of drunkenness and aggression.

Each participant was asked to read one statement and record their opinions of it on a questionnaire designed to gauge perceptions of the perceived reality, truth, plausibility, coherence, and typicality of the statement. Questions were presented in both an open and a closed format in order to elicit precise and detailed responses. Participants were also asked to give their opinions on the structure of the statement as a whole.

Results

Experimental scenarios are always subject to the possibility that they are not perceived as genuine or that reactions to them will not generalize to other contexts. However, in the present case the scenarios did take the form of brief simulated statements of the form that police may record during an investigation. The context of this study within a Centre for Investigative Psychology that is known to study statements obtained by the police further enhanced the respondents’ expectations that these could be genuine statements. The participants’ response to the material as genuine is born out by the fact that 82% of the participants declared that they believed the statements were genuine (“real”) accounts of a suspect’s account of their involvement in a criminal event. This qualitative data did not allow for examination of the differences between those who believed the statements were genuine or not but, that is clearly an interesting area for future research.

With regard to narrative sequence there did appear to be an impact upon the perceived plausibility, truthfulness, realism, and coherence of the statements. When asked to provide reasons why such judgements were made, participants who rated the canonically sequenced statements as more plausible gave explanations such as “the account [...] seemed logical in that it summarizes what went on in a clear time sequence”, and “the explanation is simple but consistent”. These can be compared with comments on the non-sequenced statements such as “doesn’t follow through the incident, jumps from after the incident back to the beginning” and “he (the suspect) says one thing and half way seems to change his story, it doesn’t add up”. Similarly, indications of why the statements that contained an anchor were not rated as plausible were comments such as “he’s been in trouble before—a leopard doesn’t

change its spots” and “he’s been in trouble before for the same thing!”. Therefore, although respondents only read one statement each and the modifications were only a small component of the statements, there were clear indications that respondents were sensitive to these aspects of the statements.

In addition to these results, chi-square analysis showed significant associations between narrative scenario and plausibility, and narrative scenario and coherence ($\chi^2 = 14.76$, $df = 7$, $p < 0.05$ and $\chi^2 = 16.36$, $df = 7$, $p < 0.05$ respectively). Examination of the results confirmed the direction of this significance, with statements adhering to the model by Stein and Glenn (1979) of narrative structure being rated as plausible and coherent more frequently than statements that did not follow this structure. Also, statements that did *not* contain a criminal anchor were rated as plausible and coherent more frequently than those that did contain an anchor. The associations found between the ratings of plausibility, truth, realism, and coherence suggested that when people form a judgement about the “goodness” of a narrative, all of these variables are used in order to decide whether it is a valid account, or plausible version, of the events in question.

On closer examination of the responses to the pilot study, it was evident that a number of concepts relating to plausibility were being drawn upon in order to assess the statement. Therefore, ten items were constructed to form a response set, which would amalgamate the related themes that emerged from the pilot study. The response form consisted of ten questions, each a ten-point Likert scale, to indicate the degree of agreement of the participant with each of the ten descriptions describing the statement. The items of the Likert scale were as follows: true, convincing, logical, coherent, consistent, plausible, reliable, honest, sound, and credible. Each statement could therefore receive a maximum overall plausibility score of 100 (by scoring ten on all ten questions) and a minimum plausibility score of ten (by scoring one on all ten questions). This ten-item scale was used in subsequent studies. It is given in Appendix B.

STUDY 2

Method

Participants

Again 80 undergraduate students (48 females and 32 males) between the ages of 18 and 28 (mean age 22) from the University of Liverpool volunteered to participate in this study.

Procedure

Each participant was provided with one of the suspect statements and was asked to read the statement carefully and record their opinions of it on the ten-item plausibility scale. On this scale, a score of 1 indicated extremely low level of the variable in question, and a score of 10 indicated maximum levels (see Appendix B).

Reliability of the Scale

In order to test the homogeneity of the scale, Cronbach's α coefficients were calculated for the responses from the 80 participants across the eight different narrative conditions. It was found that consistency was high ($\alpha = 0.91$) among all of the variables, thus indicating the reliability of the scale. The contribution of each item of the scale to the overall reliability was also measured. The α scores for the scale with each item deleted were never below 0.89, indicating an almost equal contribution from each item to the reliability of the scale as a whole. This high degree of homogeneity for a set of items that have high face validity also therefore lends support to the validity of the scale as a whole.

STUDY 3

Having established the acceptability of the statements and the reliability of the measure of judged plausibility, a further quantitative study was carried out to test the main hypotheses of the effect of narrative structure and anchoring and the relative influence of these two aspects.

Method

Participants

In order to gain a sample more representative of a real jury selection, participants were randomly approached over a period of 3 days in Liverpool City centre. 80 participants (36 males and 44 females) from 18 to 63 years of age (mean age 36) volunteered to take part in the study. Participants were from a broad range of occupational and educational backgrounds, which was felt to replicate the variance that would exist in a jury selection.

Procedure

The statements used in the pilot study, given in Appendix A, were presented to respondents and they were asked to rate them using the ten-item plausibility scale in Appendix B. Each participant was given one statement, and asked to read it carefully. S/he was then asked to record his/her opinions of it on the plausibility scale, by circling the response (1–10) they felt best described the statement in question.

Results

Results from a three-way ANOVA, in Table 3, only show a significant main effect of anchoring ($F(1, 72) = 5.7, p < 0.05$) on the perceived plausibility of the statements. The means indicate that overall the statements that did not contain an anchor received higher plausibility scores than those that did. There was no significant main effect for sequence or the different scenarios, although generally, contrary to the hypothesis, the non-sequenced scenarios were rated more plausible than the sequenced ones. This

Table 3. Three-way ANOVA results for study 3

Source	df	Mean square	<i>F</i>	Significance
Crime	1	112.81	0.36	NS
Sequence	1	0.012	0.00	NS
Anchor	1	1776.61	5.67	0.020*
Crime * sequence	1	2989.01	9.54	0.003**
Crime * anchor	1	30.01	0.09	NS
Sequence * anchor	1	94.61	0.30	NS
Crime * sequence*anchor	1	891.11	2.84	NS
Error	72	313.29		
Total	80			
Corrected total	79			

* $p < 0.05$, ** $p < 0.005$.

unexpected result relates to the significant interaction between type of crime depicted in the scenario and narrative sequence ($F(1, 72) = 9.5, p < 0.05$).

The interaction between scenario and the other treatments is revealed by consideration of the sets of means for each scenario. As hypothesized the means for the burglary scenario, displayed in Table 4, show that the sequenced statements are more plausible than the non-sequenced and the non-anchored are more plausible than the anchored statements. In combination the two treatments produce a marked effect such that the anchored, non-sequenced statements are on average below the midway point for the scale, suggesting a general scepticism about the statements. In contrast, the sequenced non-anchored statements, with a mean of 70.0, are in the top third of the plausibility range, indicating some belief in the statements. The effect of the treatments, especially in combination, therefore appears considerable.

As can be seen in Table 4 the homicide statements that did not adhere to the sequence of Stein and Glenn (1979), were rated as more plausible than the sequenced statements. This effect is so marked that the non-sequenced and anchored statement is seen as marginally more plausible on average than the sequenced and anchored statement, suggesting that the process assumed to be part of the non-sequencing has masked the effect of the anchor. Either there was something about the content of that scenario that confounded the effects being studied or there was some aspect of the way the material was sequenced that confused the issues.

Overall, though the anchoring conditions here had the greatest relative effect on decisions of plausibility, contributing to 6.2% of the explained variance in plausibility scores.

Table 4. Mean plausibility scores for the burglary and homicide statements for study 3

	No anchor	Anchor	Total
Burglary			
Sequenced	70.0 (10.9)	68.2 (17.3)	138.2
Non-sequenced	66.0 (17.1)	47.1 (24.2)	113.1
Total	136.0	115.3	
Homicide			
Sequenced	65.6 (18.0)	52.9 (25.9)	118.5
Non-sequenced	73.3 (8.1)	69.6 (12.1)	142.9
Total	138.9	122.5	

Numbers in parentheses are standard deviations.

Discussion

It is evident from the results that the inclusion of an anchor in both the homicide and burglary statements decreased their perceived levels of plausibility. However, the effect of sequence was dependent on the scenario involved: a reversal in the sequence of narrative clauses only resulted in a decrease in plausibility levels in the burglary condition. This shows that narrative sequence *does* have an impact on plausibility, and suggests that in the homicide condition the rearrangement of the clauses did not produce the anticipated effects.

Careful examination of the reorganized homicide statement showed that its beginning, "Eventually, we broke off from the scuffle and realized that one of the young lads had been killed", may have been interpreted as an initial summary of the story, i.e. as the abstract, as defined by the model of Stein and Glenn (1979). It is possible that this opening statement gives a better account of the actions than the one used in the sequenced statement: "I was just trying to help out in a fight that went wrong". In this case it is possible that the position of the component gives the expectation that it is a summary. As such the judge attempts to infer the general thrust of the account that follows. There is therefore the possibility that this provides a form of anchor in the present homicide scenario: "Young men messing around can give rise to serious accidents". Presented later in the sequence this statement seems more of an afterthought and therefore may not be taken as an integral part of the narrative. In general it may be the case that in certain situations, a narrative clause can take its meaning from its position in the text, rather than from the simple definitions attributed to it in linguistic constructions.

STUDY 4

To test the possibility that the particular clause used in study 3 was influencing the results due to its position in the sequence, a new version of the homicide scenario was devised (see Appendix C). This scenario was still based around a fight situation in which the criminal involvement of the suspect was ambiguous. However, instead of totally reversing the sequence of the narrative clauses, they were randomly ordered so that instead of beginning with the consequence it began with an initiating event. Hence the non-sequenced statement followed the arrangement initiating event(1), initiating event(2), attempt(1), attempt(2), reaction, consequence, abstract, and setting. A different anchor was also used, which better reflected the one used in the original burglary statement: "I know the trouble you can get into from fights I've had before".

Method

Participants

60 participants (26 males and 34 males) were again randomly selected in Liverpool City centre over 2 days. The age of the participants ranged between 18 and 60 years (mean age 32).

Procedure

Each participant was provided with a randomly selected set of two of the new homicide statements, presented in random order. They were asked to read each statement carefully and record their opinions of each on the plausibility scale devised in experiment 2. No order effect was found so results were combined over all similar statements.

Results

Results of a two-way ANOVA showed significant main effects both for sequence and for anchor, as detailed in Table 5.

As displayed in Table 6 the mean plausibility scores of the statements show very similar results to those for the burglary condition in study 3. The sequenced statements were rated as having higher levels of plausibility than the non-sequenced statements, the anchored statements being perceived as less plausible than the non-anchored statements. The relative effects of sequence and anchoring are almost equal, each contributing to around 15% of the explained variance in plausibility scores. Together they create an even stronger effect than in the burglary statements, the mean for the anchored, non-sequenced statement of 45 being below the mid-point for the plausibility scale, whilst the non-anchored, sequenced statement obtained a mean of 72, well above the mid-point. So, as in burglary, small changes in the content of the statement and in the sequence in which it is presented can make the difference between believability and scepticism.

It is therefore evident that both the inclusion of a criminal anchor, and a failure to follow conventional models of narrative structure, can have detrimental effects on the perceived plausibility of a statement.

Table 5. Two-way ANOVA results for homicide statements in study 4

Source	df	Mean square	<i>F</i>	Significance
Sequence	1	5280.13	25.03	0.000***
Anchor	1	5018.13	23.78	0.000***
Sequence * anchor	1	353.63	1.68	NS
Error	116	210.98		
Total	120			
Corrected total	119			

*** $p < 0.001$.

Table 6. Mean plausibility scores for the homicide statements in study 4

	No anchor	Anchor	Total
Sequenced	71.6 (15.2)	62.0 (13.9)	133.6
Non-Sequenced	61.7 (14.6)	45.3 (14.3)	107
Total	133.3	107.3	

Numbers in parentheses are standard deviations.

GENERAL DISCUSSION

The present studies have highlighted the influence of narrative sequence and anchors on the perceived plausibility of suspect testimonies. It was found that statements about theft or violent death sequenced according to the model used by Stein and Glenn (1979) were perceived as more plausible than those statements in which the narrative clauses occurred in a random order. When the suspect testimonies contained a sentence that anchored the statement to commonly held notions of criminality, they were perceived as less plausible than when no such sentences were present.

These results show that there are circumstances in which the logic of a narrative may not be the only basis for judging its plausibility. They therefore raise the possibility of modelling the cognitive processes that give rise to judgements of plausibility of narratives. These processes relate both to "internal" structural constituents of narratives, especially the order in which they are presented, and to "external" stereotypes and belief systems on which an individual may draw to conceptualize and interpret particular components of the narrative.

Such findings may be linked to classical theories of person perception, such as that of Asch (1946), who states that how an individual is perceived depends on inferences made about them on the basis of the central traits that they are known to possess. Thus, replacing the trait "warm" with "cold" can radically alter impressions of an individual. Similarly, the inclusion of a criminal anchor in a suspect testimony (e.g. "I know the trouble you can get into from fights I've had before") can have a negative effect on how that person is perceived, and thus influence judgements made concerning the individual's perceived honesty and reliability.

The *relative* effect of sequence and anchoring on perceived plausibility is also important. In study 3, it can be seen that the presence of an anchor makes a significant contribution to the explained variance in plausibility levels, but narrative sequence does not. However in study 4, when the homicide statement was modified to avoid the narrative clauses taking their meaning from their location within the narrative, both sequence and anchor had an almost equal effect on the variance in plausibility scores. Under these conditions sequence and anchoring can be of equal importance when making decisions about the perceived plausibility of suspect testimonies.

An important point that emerged from study 2 was that it is not just the content of the narrative clauses that can define how they are perceived, but also the point in the sequence at which they occur. This opens up the possibility of important interactions between the nature of an anchor and the point in the sequence at which it is mentioned. This highlights a number of aspects for future research into models of narrative structure, and the effect of location on the perceived function of the narrative clauses.

The experimental strategy used here does appear to be a powerful, ecologically valid, framework for studying the cognitive processes involved in judgements of plausibility. Many of the details of the anchors used and the manipulation of the sequences in which information is presented can be explored using this paradigm. From such studies a more extensive model could be developed both of classes of anchor and their influence as well as the implications of different structures. This will facilitate an understanding of the ways in which judgements are developed concerned with apparently logical, but inherently ambiguous, phenomena, opening up further consideration of cognitive heuristics.

Such studies have important practical implications. The experimental manipulations studied here are open to conscious manipulation. In some cases these manipulations may be abused and may be the basis of various forms of confidence trickery. In other cases awareness of the power of these process can be important to protect the innocent.

Of course, the scenarios used here were short and, unlike a suspect giving evidence, or being cross-examined, there was no possibility of considering the suspect's demeanour or other possible paralinguistic or non-verbal indicators that could be drawn upon to form a view of the plausibility of what they are saying. However, there are many legal circumstances in which decisions are based upon written material, sometimes even on summary statements about the facts at issue. Nonetheless future studies using more extended material and other modes than written would be of value. The variations between individuals in terms of age, gender, and other attributes, such as attitudes towards or experience of crimes, were also not examined in the present study. The paradigm used here is very amenable to such explorations in the future.

CONCLUSION

This study has increased our understanding of the influences on judgements of narrative plausibility and their relationship to both internal and external discursive devices, i.e. the sequence of clauses within the narrative, and the presence of anchors as external benchmarks, on which judgements of plausibility are made. The successful application of an experimental paradigm to such research opens up possibilities for the further use of such methods in the narrative arena, as opposed to the qualitative studies that have dominated previous explorations into issues such as narrative structure. This may lead to the resolution of problems such as that revealed in the unexpected result of study 3, concerning the effect of position within the narrative on the perceived meaning of the different clauses.

A number of practical implications follow from the results of this study. First, support is found for the practice of protecting juries against suspects' pre-convictions, or other such prejudicial information, as these would surely serve as criminal anchors and decrease the overall plausibility of the suspect's account of events. Also, the sequence in which a narrative is presented will greatly influence such perceptions of plausibility, emphasizing the importance of presenting suspect accounts in accordance with traditional models of narrative structure such as that used by Stein and Glenn (1979). Similar issues need to be considered during the interviewing of suspects. If during an interview suspects are continuously interrupted and not allowed to develop a chronological sequence of events that correspond to such models, then their account is less likely to be believed or seen as plausible. In court, jurors have to decide which argument presents the most probable account of what happened, and if they have to choose between two [narratives], they are likely to choose the most plausible one (Baudet *et al.*, 1994).

REFERENCES

Allen, R. E. (Ed.). (1969). *The Oxford dictionary of current English*. Oxford: Oxford University Press.

- Asch, S. E. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology*, 41, 258–290.
- Baudet, S., Jhean-Larose, S., & Legros, D. (1994). Coherence and truth: A cognitive model of propositional truth attribution. *International Journal of Psychology*, 29, 219–350.
- Caron, J. (1992). *An introduction to psycholinguistics*. Exeter: BPC Wheatons.
- Edwards, D. (1997). *Discourse and cognition*. London: Sage.
- Labov, W. (1972). *Language in the inner city: Studies in the Black English vernacular*. Philadelphia, PA: Blackwell.
- Robinson, J. A., & Hawpe, L. (1986). Narrative thinking as a heuristic process. In T. R. Sarbin (Ed.), *Narrative psychology: The storied nature of human conduct* (pp. 111–124). New York: Praeger.
- Rumelhart, D. (1975). Notes on a schema for stories. In D. Bowbrow, & A. Collins (Eds.), *Representation and understanding: Studies in cognitive science*. New York: Academic.
- Schwartz, M. N. K., & Flamer, A. (1981). Text structure and title effects on comprehension and recall. *Journal of Verbal Learning and Verbal Behaviour*, 20, 61–66.
- Singer, M. (1990). *Psychology of language: An introduction to sentence and discourse processes*. NJ: Erlbaum.
- Stein, N. L., & Glenn, C. G. (1979). An analysis of story comprehension in elementary school children. In R. O. Freedle (Ed.), *Discourse processing: Multidisciplinary perspectives*. NJ: Ablex.
- Thorndyke, P. W. (1977). Cognitive structures in comprehension and memory of narrative discourse. *Cognitive Psychology*, 9, 77–110.
- Wagenaar, W. A. (1995). Anchored narratives: A theory of judicial reasoning and its consequences. In G. Davies, S. Lloyd-Bostock, M. McMurrin, & C. Wilson (Eds.), *Psychology, law and criminal justice*. Berlin: de Gruyter.
- Wagenaar, W. A., van Koppen, P. J., & Crombag, H. F. M. (1993). *Anchored narratives: The psychology of criminal evidence*. Hemel Hempstead: Harvester Wheatsheaf.
- Wiener, R. L., Richmond, T. L., Seib, H. M., Rauch, S. M., & Hackney, A. A. (2002). The psychology of telling murder stories: Do we think in scripts, exemplars, or prototypes? *Behavioral Sciences and the Law*, 20, 119–139.

APPENDIX A

Homicide Statements Used in Studies 1–3

Homicide statement 1: Sequenced—No Anchor

I was just trying to help out in a fight that went wrong. It happened late on Tuesday evening when me and my mate had left off work. We arrived at the driveway of my house and one of my neighbours had run up to us and said, “these blokes are hassling some lads down the road, will you go and help sort it out?”. We had started to walk down the road towards the group and we heard a couple of blokes shouting at these lads. One of the lads threw a bottle and things got heated. We went over to try and stop the fight, but ended up throwing a few punches of our own. Eventually, we broke off from the scuffle and realized that one of the young lads had been killed. That’s basically it. I tried to stop a fight and things just got out of control.

Homicide statement 2: Non-Sequenced—No Anchor

Eventually, we broke off from the scuffle and realized that one of the young lads had been killed. That’s basically it. I tried to stop a fight and things just got out of control. We had started to walk down the road towards the group. We went over to try and stop the fight, but ended up throwing a few punches of our own. One of my neighbours had run up to us and said, “these blokes are hassling some lads down the road, will you go and help sort it out?”. We heard a couple of blokes shouting at these lads. One of the lads threw a bottle and things got heated. I was just trying to

help out in a fight that went wrong. It happened late on Tuesday evening when me and my mate had left off work and we had arrived at the driveway of my house.

Homicide statement 3: Sequenced—Anchor

I was just trying to help out in a fight that went wrong. It happened late on Tuesday evening when me and my mate were coming from the pub. We had arrived at the driveway of my house and one of my neighbours had run up to us and said, “these blokes are hassling some lads down the road, will you go and help sort it out”. We had started to walk down the road towards the group and we heard a couple of blokes shouting at these lads. One of the lads threw a bottle and things got heated. We went over to try and stop the fight, but ended up throwing a few punches of our own. Eventually, we broke off from the scuffle and realized that one of the young lads had been killed. That’s basically it. I tried to stop a fight and things just got out of control.

Homicide statement 4: Non-Sequenced—Anchor

Eventually, we broke off from the scuffle and realized that one of the young lads had been killed. That’s basically it. I tried to stop a fight and things just got out of control. We had started to walk down the road towards the group. We went over to try and stop the fight, but ended up throwing a few punches of our own. One of my neighbours had run up to us and said, “these blokes are hassling some lads down the road, will you go and help sort it out?”. We heard a couple of blokes shouting at these lads. One of the lads threw a bottle and things got heated. I was just trying to help out in a fight that went wrong. It happened late on Tuesday evening when me and my mate were coming from the pub and we had arrived at the driveway of my house.

Burglary Statements Used in All Studies

Burglary statement 1: Sequenced—No Anchor

The burglary was all my mate’s idea. It was nothing to do with me. I’ve never been in trouble before. It was Saturday afternoon and we had decided to go to the park to meet some friends and play football. It was on the way to the park that we saw the house. It looked like someone rich lived there. It was my mate who suggested we sneak inside and take a look around. I didn’t want to, so I started to walk up the road to the park. He disappeared, then I heard the sound of breaking glass and an alarm went off. My mate came running out from behind the house holding a portable television. I begged him to take the television back, but he told me to leg it towards the park. That’s how it happened. My mate was the only one who went inside. I didn’t have anything to do with it.

Burglary statement 2: Non-Sequenced—No Anchor

I begged him to take the television back, but he told me to leg it towards the park. That’s how it happened. My mate was the only one who went inside. I didn’t have

anything to do with it. It was my mate who suggested we sneak inside and take a look around. I didn't want to, so I started to walk up the road to the park. My mate had come running out from behind the house holding a portable television. It was on the way to the park that we saw the house. It looked like someone rich lived there. He disappeared, then I heard the sound of breaking glass and an alarm went off. The burglary was all my mate's idea, it was nothing to do with me. I've never been in trouble before. It was Saturday afternoon and we had decided to go to the park to meet some friends and play football.

Burglary statement 3: Sequenced—Anchor

The burglary was all my mate's idea, it was nothing to do with me. I've been in trouble for burglary before and I wouldn't get involved again. It was Saturday afternoon and we had decided to go to the park to meet some friends and play football. It was on the way to the park that we saw the house. It looked like someone rich lived there. It was my mate who suggested we sneak inside and take a look around. I didn't want to, so I started to walk up the road to the park. He disappeared, then I heard the sound of breaking glass and an alarm went off. My mate came running out from behind the house holding a portable television. I begged him to take the television back, but he told me to leg it towards the park. That's how it happened. My mate was the only one who went inside. I didn't have anything to do with it.

Burglary statement 4: Non-Sequenced—Anchor

I begged him to take the television back, but he told me to leg it towards the park. That's how it happened. My mate was the only one who went inside. I didn't have anything to do with it. It was my mate who suggested we sneak inside and take a look around. I didn't want to, so I started to walk up the road to the park. My mate had come running out from behind the house holding a portable television. It was on the way to the park that we saw the house. It looked like someone rich lived there. He disappeared, then I heard the sound of breaking glass and an alarm went off. The burglary was all my mate's idea, it was nothing to do with me. I've been in trouble for burglary before and I wouldn't get involved again. It was Saturday afternoon and we had decided to go to the park to meet some friends and play football.

APPENDIX B: PLAUSIBILITY SCALE

FALSE									TRUE
1	2	3	4	5	6	7	8	9	10
UNCONVINCING									CONVINCING
1	2	3	4	5	6	7	8	9	10
ILLOGICAL									LOGICAL
1	2	3	4	5	6	7	8	9	10
INCOHERENT									COHERENT
1	2	3	4	5	6	7	8	9	10
INCONSISTENT									CONSISTENT
1	2	3	4	5	6	7	8	9	10

IMPLAUSIBLE									PLAUSIBLE
1	2	3	4	5	6	7	8	9	10
UNRELIABLE									RELIABLE
1	2	3	4	5	6	7	8	9	10
DECEITFUL									HONEST
1	2	3	4	5	6	7	8	9	10
UNSOUND									SOUND
1	2	3	4	5	6	7	8	9	10
NOT CREDIBLE									CREDIBLE
1	2	3	4	5	6	7	8	9	10

APPENDIX C

Homicide Statements Used in Study 4

Statement 1: Sequenced—No Anchor

I was just trying to defend myself. It happened on Saturday night when me and two mates were walking through the park. There was a group of lads behind us, and they began hassling us, you know, shouting and swearing and calling us names. We walked faster, but they started running after us. They caught up with us and started pushing us around a bit. So we tried to tell them to get lost, and that we weren't interested in fighting with them. Eventually we had to throw a few punches, just to try and get away, but things got a bit nasty. When I broke off from the fight I saw one of the other lads lying on the ground. He looked pretty badly hurt and I realized that he was dead. That's basically it. We didn't want any trouble but things just got out of hand.

Statement 2: Non-Sequenced—No Anchor

There was a group of lads behind us, and they began hassling us, you know, shouting and swearing and calling us names. They caught up with us and started pushing us around a bit. We walked faster, but they started running after us. So we tried to tell them to get lost, and that we weren't interested in fighting with them. That's basically it. We didn't want any trouble but things just got out of hand. Eventually we had to throw a few punches, just to try and get away, but things got a bit nasty. When I broke off from the fight I saw one of the other lads lying on the ground. He looked pretty badly hurt and I realized that he was dead. I was just trying to defend myself. It happened on Saturday night when me and two mates were walking through the park.

Statement 3: Sequenced—Anchor

I was just trying to defend myself. It happened on Saturday night when me and two mates were walking through the park. There was a group of lads behind us, and they began hassling us, you know, shouting and swearing and calling us names. We walked faster, but they started running after us. They caught up with us and started pushing us around a bit. So we tried to tell them to get lost, and that we weren't interested in fighting with them. I know the trouble you can get into from fights I've

had before. Eventually we had to throw a few punches, just to try and get away, but things got a bit nasty. When I broke off from the fight I saw one of the other lads lying on the ground. He looked pretty badly hurt and I realized that he was dead. That's basically it. We didn't want any trouble but things just got out of hand.

Statement 4: Non-Sequenced—Anchor

There was a group of lads behind us, and they began hassling us, you know, shouting and swearing and calling us names. They caught up with us and started pushing us around a bit. We walked faster, but they started running after us. So we tried to tell them to get lost, and that we weren't interested in fighting with them. I know the trouble you can get into from fights I've had before. That's basically it. We didn't want any trouble but things just got out of hand. Eventually we had to throw a few punches, just to try and get away, but things got a bit nasty. When I broke off from the fight I saw one of the other lads lying on the ground. He looked pretty badly hurt and I realized that he was dead. I was just trying to defend myself. It happened on Saturday night when me and two mates were walking through the park.