# Narrative Theory, Psychology and Law

# Samantha Hardy

#### Introduction

This article reviews a number of philosophical and psychological theories and explores their application to witness evidence. It uses narrative theory to develop existing psychological research, revealing how pre-existing narrative typifications affect the witness's perceptions, memory and recall.

Law is traditionally a bottom-up process. Facts and evidence are pieced together to come up with the story of the crime. This paper demonstrates how analysing witness evidence from the top-down, using narrative theory and psychological research on schemas, provides an interesting and practical insight into how a witness constructs and revises his or her story. It also helps to determine which parts of the story are likely to be vulnerable to cross-examination.

## Memory

Generally speaking, a witness must give evidence based on his or her memory of the events in question. The law's reliance on witness memory is based largely on "common sense psychology". That is, our legal system, including the rules of evidence, presupposes that a witness's memory is generally reliable and works somewhat like a video recorder. There is substantial psychological research that contradicts this common misapprehension about memory processes. Memory is now believed to be an active and constructive process, with three stages: acquisition, retention and retrieval. It is also acknowledged

that memory can be influenced by a number of social, situational, individual and interrogational factors.

The concept of memory as a social process developed from Bartlett's early studies of perception and how people give meaning to their experiences. He suggested our perceptions do not give us our concepts (that is, the psychological structures we use to give meaning to our experiences), but instead our percepts are given to us according to our concepts (that is, according to our intrinsic inborn ways of perceiving the world). Organised wholes, not elemental sensations, are epistemologically and experientially prior.<sup>2</sup>

The phenomenologists claimed that perception is always controlled by the "intentionality" of consciousness. What is perceived is always partial and incomplete, in "aspects" that are filled out and synthesized according to the attitudes, interests and expectations of the perceiver. Every perception includes a "horizon" of potentialities that the observer assumes, on the basis of past experiences with or beliefs about such entities, will be fulfilled by subsequent perceptions.<sup>3</sup> Early Gestalt theorists also suggested that the appropriate way of analysing perceptual processes was "from above down" and that structures, rather than sensory elements, were primary in a percept.

According to modern cognitive models, such as the macro-structure model proposed by Kintsch & Van Dijk<sup>4</sup>, stimuli are processed using presuppositions in the form of previous experience, beliefs and attitudes, motivations and goals. Perception occurs when there is a recognised similarity between the stimuli and an existing structural representation. These structural representations are useful because they enable us to select from the volume of sensory material we are exposed to each day the stimuli necessary for us to function, without the need for great or even conscious effort.

These pre-existing structural representations have been described as "schemas". In other words, pre-existing frameworks for familiar types of objects and events which we use to interpret new information. Schemas have been described as the

F C Bartlett, Remembering: A Study in Experimental and Social Psychology, Cambridge, The University Press, England, 1932, p 255.

E C Carterette and M P Friedman, (eds) Handbook of Perception Volume 1: Historical and Philosophical Roots of Perception, Academic Press, New York, 1974, p 85.

M Groden, and M Kreiswirth (eds), *The John Hopkins Guide to Literary Theory and Criticism*, Academic Press, New York, 1994, p 563.

T A Van Dijk, "On Macrostructures, Mental Models, and Other Inventions: A Brief Personal History of the Kintsch-Van Dijk Theory" in *Discourse Comprehension: Essays In Honor of Walter Kintsch*, C A Weaver and S Mannes (eds.), L Erlbaum Assoc, Hillsdale, New Jersey, 1995.

basic building blocks of cognition.<sup>5</sup> They are closely related to the Pavlovian concept of stimulus generalisation.<sup>6</sup> They are abstract forms of organising knowledge in order to assist our processing of future events. They may be organised spatially, temporally or logically and may vary in abstractness, complexity and function.<sup>7</sup> Schemas are formed subconsciously, that is, the typical occurrences that build up to a schema are not always noticed. Once formed, schemas are relatively stable and people generally expect future events to be consistent with their pre-existing schemas. The schema's "guiding role is to assume the obvious and to direct attention to the unusual".<sup>8</sup> In any given experience a number of schemas may be subconsciously activated and have an effect on perception and memory processes. By applying narrative theory to our current understanding of memory processes, we are able to predict the types of schemas that are likely to be instantiated in relation to a particular event.

Human beings have a particular "readiness" for narrative, that is "a predisposition to organise experience into a narrative form". This is evidenced by the fact that narrative is present in spoken and written language, fixed and moving images, gestures and combinations of these things in every society. Based on this disposition towards narrative, it is suggested that our cognitive "vocabulary" is structured in the form of various narrative typifications, or language based "super-schemas", which can be further broken down into various sub-schemas representing the essential elements of the narrative.

A narrative typification is a schematic organisation of familiar event sequences that people have acquired about common routines, such as buying groceries at the supermarket, or visiting the doctor. As an economic measure in the storage of episodes, when enough of them are alike they are remembered in terms of a standardised generalised narrative.<sup>11</sup> Narrative typifications organise events and human actions into a whole, thereby attributing significance to individual

J M Mandler, Stories, Scripts, and Scenes: Aspects of Schema Theory, Harvard Unveristy Press, Cambridge, Mass, 1984.

R C Schank and R P Abelson, "Knowledge and Memory: The Real Story", in Knowledge and Memory: The Real Story, Advances in Social Cognition, R S Wyer, (ed), Vol VIII, L Erlbaum Assoc, Hillsdale, New Jersey, 1995, p 26.

R S Wyer and T K Srull (eds), *Handbook of Social Cognition*, Vol 2, L Erlbaum Assoc, Hillsdale, New Jersey, 1984, p 80.

Mandler, above n 5, p 107.

J Bruner, Acts of Meaning, Harvard University Press, Cambridge, Mass, 1990, p at 45.

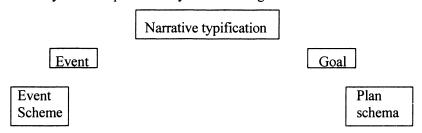
R Barthes, "Introduction to the Structural Analysis of Narratives" in *Image-Music-Text*, Hill and Wang, New York, 1977, p 79.

R C Schank and R P Abelson, *Scripts, Plans, Goals and Understanding: An Inquiry Into Human Knowledge Structures*, L Erlbaum Assoc, Hillsdale, New Jersey, 1977, p 19.

actions according to their effect on the whole.<sup>12</sup> In Gestaltian terms, narrative makes individual actions comprehensible by identifying the temporal Gestaltian whole to which they contribute. The importance of this connective process can be seen in our use of language; there is no need to vocalise every detail in a story, as we can assume the listener is familiar with general narrative typification and can fill in the blanks.<sup>13</sup>

Narrative typifications are composed of a combination of different types of schema. A narrative typification is generally based on a story schema, with the normal components of setting, actors, events and goals. Each of those components may in turn be based on a particular sub-schema (eg. setting – scene schema, events - event schemas, goals – plan schemas, actors - stereotypes).

The hierarchy can be represented by the following chart:



Jenkins, Wald and Pittenger's studies led them to conclude that "the event" itself is primary, for only after the event is apprehended can we appropriately analyse the "units" that contribute to its apprehension. <sup>141</sup> Rephrasing this in terms of narrative theory, the narrative itself is primary, because it is only once the narrative typification is instantiated that we can appropriately analyse its elements. There is a natural need to find "normal" elements of narrative in what is witnessed (eg. setting, actors, goal, event). These elements are components of the story schema - a set of expectations about the way in which stories proceed. <sup>15</sup> Narrative is "capable of generating perceptions in terms of relative similarity: an account actually given makes more or less sense insofar as it

D E Polkinghorne, Narrative Knowing and the Human Sciences, State University of New York, Albany, 1988, p 18.

Schank and Abelson, above, n 6, p 41.

J J Jenkins, S Wald and J B Pittinger, "Apprehending Pictorial Events: An Instance of Psychological Cohesion", in *Perception and Cognition: Issues in the Foundations of Psychology*, C Savage (ed), Minnesota Studies in the Philosophy of Science, Vol 9, University of Minnesota Press, Minneapolis, 1978, p 159

D E Polkinghorne, above n 12, p 18.

appears more or less similar to the narrative typification". New experiences are interpreted in terms of old stories and we are subject to the powerful effects of expectations right from the beginning. When, in "real life" we encounter events which are familiar to us as the beginning of a "story", expectations are triggered, and events that follow are interpreted in accordance with those expectations.

So, if our perceptions are affected by a pre-existing narrative typification, which is in turn structured in accordance with a story schema, we are likely to process and categorise stimuli in terms of the normal elements of narrative. In other words, we are likely to perceive certain stimuli which together comprise the setting, other stimuli which together comprise the actors, and so forth, of the developing narrative. In order to further simplify our cognitive processes, each category of stimuli is likely to be filtered according to the related schema. For example, stimuli fitting within the category of setting is likely to be processed according to a scene schema. What this means in the context of witness evidence is that to assess the veridicality of the evidence, we need to identify the components of the narrative and consider how they have contributed to its structure.

We have expectations as to the settings in which particular types of action take place. These expectations affect two different aspects of scene information: (a) inventory information, that is, what is normally present in a scene; and (b) spatial relation information, that is, where things are normally positioned in the scene. Various studies have shown that a person's attention is attracted to "informative" areas of a scene. <sup>19</sup> These are areas which seem to be unusual. This begs the question "unusual compared with what?". It is submitted this question can be answered with reference to the narrative typification. That which is informative will be that which is unusually present or absent in terms of the narrative typification.

When we perceive something that is unexpected, there are two possible effects on memory. If aspects of the information received cannot be explained by existing narrative structures, they may be totally ignored or given minimal attention and promptly forgotten. "In a good story all elements are connected to

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<sup>&</sup>lt;sup>16</sup> B J Jackson, "Anchored Narratives and the Interface of Law, Psychology and Semiotics" (1996) 1 *Leg and Crim Psych* 17 at 32.

J M Mandler, above n 5, p 1.

J M Mandler, above n 5, p 108.

See for example H N Mackworth and A J Morandi, "The Gaze Selects Informative Details Within Pictures" (1967) 2 *Perception & Psychophysics* 547.

the central action; nothing sticks out on its own". Conversely, they may be highlighted in their exceptionality. Unexpected objects or events which are sufficiently unusual will attract our attention and be remembered more veridically. This is because interactive procedures are necessary for object identification and this results in a more elaborate representation with respect to descriptive information. Studies by Graesser, Gordon and Sawyer confirm that features which are inconsistent with an activated narrative are encoded as "corrections" or "tags" to the narrative representation.

It seems that these additions to the existing narrative are particularly vulnerable to loss in memory.<sup>22</sup> With the passage of time, recall tends to conform more and more to the default values of a schema.<sup>23</sup> This can be explained by schema models based on the premise that there are two different memory codes.<sup>24</sup> The first records the actual events that occurred, the second reinforces the schema structure in an abstract form. The record of the actual events fades rapidly but can be recreated to some degree using the schema structure. Remembering the abstract structure of an event is tantamount to remembering the types of things which were most likely to have occurred (that is, the normal elements of the narrative typification). The episodic information that will be remembered about an event is the difference between that event and its prototypical narrative representation in memory.<sup>25</sup>

Inherent in the schema-based theory of memory is the idea that our memories are not fixed from the time of perception, but are subject to post-event contamination. Elizabeth Loftus has carried out numerous studies on what she calls the "misinformation effect". This is a common phenomenon when new, post-event information becomes incorporated into a recollection,

W A Wagenaar, P J Van Koppen and H R M Crombag, Anchored Narratives. The Psychology of Criminal Evidence, Harvester Wheatsheaf, Havel Hampstead, Herts, 1993, p 36.

A Graesser, S E Gordon, and J D Sawyer, "Recognition Memory for Typical and Atypical Actions in Scripted Activities: Tests of a Script Pointer + Tag Hypothesis" (1979) 18 J Verbal Learing and Verbal Behaviour 319.

Mandler, above, n 5; J Bruner, *Actual Minds, Possible Worlds,* Harvard University Press, Cambridge, Mass, 1986.

Mandler, above, n 5, p 104

G H Bower, J B Black and T J Turner, "Scripts in Memory for Text" (1979) 11

Cognitive Psychology 177; R A Sulin, D J and Dooling, "Intrusion of a Thematic Idea in Retention of Prose" (1974) 103 J Exp Psych 255; A C Graesser and G V Nakamura, "The Impact of a Schema on Comprehension and Memory" in G H Bower (ed), The Psychology of Learning and Motivation, Vol 16, Academic Press, New York,, 1982.

A Friedman, "Framing Pictures: The Role of Knowledge in Automatized Encoding and Memory for Gist" (1979) 108 *J Exp Psych: Gen* 316 at 343.

E Loftus and H Hoffman, "Misinformation and Memory: The creation of new memories" (1989) 118 *Journal of Experimental Psychology: General* 100-104.

supplementing or altering it, sometimes in dramatic ways.<sup>27</sup> Narrative theory can help explain when and how a witness's memory is likely to be susceptible to particular types of misinformation.

Studies have shown that people have a pronounced tendency to falsely recognise related but unpresented distractors.<sup>28</sup> Thorndyke found that readers later "remembered" (falsely) that they had read inferences they had needed to fill the causal gaps in stories.<sup>29</sup> When the information to be interpreted does not provide an explicit value for an element of the narrative structure, it may be spontaneously allocated a "default" value which may then become part of the representation stored in memory.<sup>30</sup>

We also have expectations as to the normal course of events. According to Greimas every human action makes sense in terms of a linear (syntagmatic) sequence: not only the action, but also something before it and something after it.<sup>31</sup> Events are temporally connected and event schemas provide a basis for that connectivity in our processing of stimuli. Mandler describes an event schema as:

a hierarchically organised set of units describing generalised knowledge about an event sequence. It includes knowledge about what will happen in a given situation and often the order in which the individual events will take place. It is organised like a categorical structure in that the knowledge is arranged in a hierarchy with more general classes of events containing more specific events nested within them.<sup>32</sup>

The types of relationships between particular events in any event schema may be causal, enabling, or arbitrary. A witness's tendency to see a series of events as connected in one of these ways can affect his or her evidence. A plan schema is a typification of human behaviour patterns in certain situations, and is used to give meaning to the role and significance of certain events in terms of a human

E Loftus, "When A Lie Becomes Memory's Truth: Memory Distortion After Exposure to Misinformation" (1992) Current Directions in Psychological Science 121

Jenkins, Wald and Pittinger, above n 14, p 159. Bower, Black and Turner, above n 23, p

P W Thorndyke, Cognitive Structures in Human Story Comprehension and Memory, Academic Press, New York, 1975.

Wyer and Srull, above n 7, p 81.

A J Griemas, Structural Semantics: An Attempt at a Method, University of Nebraska Press, Lincoln, 1983.

Mandler, above n 5, p 14.

objective or goal.<sup>33</sup> Plan schemas are heavily influenced by society and culture.<sup>34</sup>

Every social group is organised and held together by some specific psychological tendency or group of tendencies, which give the group a bias in its dealings with external circumstances. The bias constructs the special persistent features of group culture...[and this] immediately settle[s] what the individual will observe in his environment and what he will connect from his past life with this direct response.<sup>35</sup>

Similarly, it appears that memory for people's actions is more resilient when the actions fall within the instantiated narrative typification. Lichtenstein and Brewer propose a plan schema is constructed when the witness can infer what the actor wants and what the actor believes about the world. They suggest witnessed events are clustered into "episodes" - series of events which are consistent in direction towards an intended goal. Behaviours are better remembered if they can be interpreted as instrumental to some objective of the actor, and therefore can be conceptualised in terms of a general "plan-goal" schema. It seems likely that confabulation may also occur with respect to a witness's memory of events.

We have a natural tendency to categorise other people in terms of stereotypes. These stereotypes are largely socially constructed and often involve evaluative judgments. George Fletcher's Rethinking Criminal Law discusses the concept of collective images.<sup>37</sup> For example, a collective image of acting like a thief might entail a person in dark clothing breaking into houses at night. Other stereotypes of thieves may not be so quickly instantiated, such as a pick-pocket, the perpetrator of a financial fraud or someone who is stealing electricity by rewiring their house to bypass the meter.

In any particular narrative typification there may be certain roles (for example thief, murderer, victim) which can be filled by certain different stereotypes. The thief may be a drug addict, a career criminal or a gang member. A murderer may be a thief confronted in the act of robbery, a jilted lover or a serial killer. These stereotypes will affect how the witness's attention is directed, in that he

D E Polkinghorne, above n 12, p 21. E H Lichtenstein and W F Brewer, "Memory for Goal Directed Events" (1980) 12 Cognitive Psych 412.

Bruner, above n 22p1, p 57.

F C Bartlett, above n 1, p 255.

Lichtenstein and Brewer, above, n 33 at 412.

B S Jackson, "Towards an Integrated Approach to Criminal Law: Fletcher's Rethinking Criminal Law" (1979) *Crim L R* 621.

or she will be likely to actively look for confirmation of the stereotype consistent with the instantiated narrative typification.

The pervasiveness of the narrative structure in recall has also been shown in a number of studies. For example, it has been shown that recall of a temporally ordered script typically maintains the input order. However, if some of the items are presented out of their canonical order, these tend to be recalled in their canonical position rather than in the position in which they were presented.<sup>38</sup> So it appears that a witness will tend to recall a series of events in a temporally connected and logical manner, even if the actual events occurred in a different order which may not make so much "sense" in terms of a good story.

For example, a witness may see a person running out of a room carrying a knife. Upon entering the room, the witness may see a man lying on the floor clutching his side in pain. There would be a natural tendency to make a connection between the two events, such that the witness may understand that the man had been stabbed by the person carrying the knife. If the witness then sees a window of the room was smashed, the witness may reach the conclusion the window had been smashed to enable the person with the knife to enter the room to commit the stabbing. There could easily be another explanation for this scenario. Perhaps someone threw the knife into the window, smashing it. One of the people in the room at the time grabbed the knife and ran outside to see who had thrown it through the window. Immediately afterwards, the man left in the room started to have severe appendix pain and collapsed to the floor. This latter scenario does not seem likely to the casual observer, because it does not fit within a common narrative typification. "Narrative ordering makes individual events comprehensible by identifying the whole to which they contribute". 39 In this example there are arbitrary connections between the events and these are not as convincing - in other words, it doesn't make as good a story.

Recall will also be affected by the fact that narrative is a social function.

The processes by which information is selected, transformed, and enriched instantiate the interpretive practices of particular social groups engaged in particular social tasks. It is in the pragmatics of the subsequent encounter (the police

Polkinghorne, above n 15, p 18.

<sup>38</sup> Bower, Black and Turner, above n 24 at 177; W F Brewer and E H Lichtenstein, "Event Schemas, Story Schemas, and Story Grammars" in Attention and Performance IX, J Long and A D Baddeley (eds), 1 Erlbaum Assoc, Hillsdale, New Jersey, 1981. 39

interrogation, the trial) that the witness is being helped or obstructed from telling the story according to his/her own narrative structure.<sup>40</sup>

Harré & Gillett explain this phenomenon in terms of discursive psychology, in that it is possible to renegotiate the perceived nature of what one has claimed to have seen.<sup>41</sup> When a witness is dealing with police, lawyers and other witnesses who may have different ideas about what occurred, they may have to construct an "agreed or communicatively successful version of what really happened".<sup>42</sup>

In other words, a narrative always has an audience. When a witness is sensemaking, that is thinking about the meaning of the events witnessed, the witness is their own audience. This type of reflective thinking is important in reinforcing the basic "plot" of the narrative. In this process, some of the details are likely to be lost or varied by reassessment and reindexing. Variation is even more likely to occur when the witness is thinking about what they will tell others about the events. The construction of the narrative will be affected by what the witness wants to give the listener by the anticipated instance of recall. The structure of the narrative is likely to vary greatly depending on whether the witness intends to give the listener information, a summary of significant events, or entertainment. Each time the witness thinks about how they intend to communicate what they know, the witness will think about things in a slightly different way. This will in turn affect the witnesses memory for those particular events after each instance of recall. The structure and content of the narrative is also likely to vary depending on what the witness wants for themselves out of any particular instance of recall (for example, attention or approval).

During the actual communication of the narrative to another person, the response of the audience is paramount. As such, we constantly make adjustments for the listener's reactions, even more so when the listener is asking questions. We direct our narrative towards what the listener appears to find interesting. The telling of a story is a dialogue and the listener is the coauthor of the story told.

Witness narratives are likely to be reinterpreted after the witness receives further information about the incident witnessed. This information may come from police, lawyers or the media. Further information can have an effect on

G H Gudjonsson and N K Clark, "Suggestibility in Police Interrogation: A Social Psychological Model" (1986) 1 Soc Behaviour 83.

R Harré and G Gillett, *The Discursive Mind*, Sage Publications, Thousand Oaks, California, 1994, p 35.

U Neisser and R Fivush, *The Remembering Self: Construction and Accuracy in the Self-Narrative*, Cambridge University Press, Cambridge, 1994, p.7.

the witness's evidence beyond the misinformation effect. For example, studies have shown that people tend to be more sympathetic towards others when they know more about them. A witness is likely to be given certain information about the accused perpetrator of a crime by police and lawyers. Some of this information may enable a witness to make sense of the events in a different way, which may then affect the structure of their narrative. For example, a witness to an armed robbery may have initially described the robber as "very aggressive", but after exposure to information about the accused's drug habit may reinterpret their behaviour as "desperate and panicked". Although this may seem like an unimportant distinction, a jury faced with those two descriptions is likely to feel different levels of compassion, which may affect the verdict.

## **Practical implications**

The tendency to perceive and organise experiences in narrative form will affect the way a witness's experiences are encoded into memory. First, as a result of witnesses failing to pay much attention to things that are consistent with the activated narrative, such things are less likely to be encoded and remembered. Second, even if these things are remembered, their details are likely to be forgotten.<sup>44</sup>

Third, the witness will subconsciously endeavour to connect all witnessed events in a causal or enabling manner, in order to create a good, meaningful story. He or she will actively look for confirmation of the anticipated temporal relationships. Witnesses will also tend to recall events in a goal-directed sequence, and non-goal directed events will either be forgotten or recalled separately and late.<sup>45</sup>

## **Examples**

Let us take a fairly standard break and enter scenario. The witness gives evidence that one night she sees a man in dark clothing and carrying a duffle bag climbing into her neighbour's window. If we ask the witness "What was your first impression about what was happening when you first noticed the man?" we can identify the narrative typification which was likely to have directed her attention and affected her memory processing of things that she witnessed subsequent to making this intial judgment about what was

M Currie, *Postmodern Narrative Theory*, Macmillan, Basingstoke, England, 1998, p 19.

J M Mandler and R E Parker, "Memory for Ddescriptive and Spatial Information in Complex Pictures" (1976) 2 J Exp Psych: Human Learning and Memory 38. Friedman, above n 25 at 316.

Lichtenstein and Brewer, above n 33 at 412.

#### happening.

For example, if the witness says that she thought the man was a thief breaking into the house we can infer that the witness instantiated a "break and enter" narrative typification at that time. We now need to identify the relevant features of the "break and enter" narrative typification. To a certain extent we will have to hypothesise and generalise, because it is impossible to precisely define the way the particular witness constructs this typification. With careful questioning of the witness we can build a rough picture of their narrative typification and its components.

The witness's evidence is likely to include details of the setting in which the witness saw the events unfold. In this example the setting components include the fact that it was night-time, the proximity of the events to the side window of the neighbour's house, and a man carrying a duffle bag. These are all components that are likely to come out in the witness's evidence in chief. It seems that these sorts of components are fairly typical in a break and enter scenario. That is, a common narrative typification for a break and enter involves a person in dark clothing, carrying a bag, breaking into a window at the side of a house, out of sight from passers-by, in the dark.

With this information we can make some assumptions about the aspects of the witness's evidence that are likely to be accurate, the result of misinformation or vulnerable to cross examination. For example, we could assume that the witness would be unable to provide detailed evidence about the style of the duffle bag (other than it was dark and appeared heavy) or the type of clothing worn by the offenders (other than it was dark), because these things are consistent with the narrative typification and would therefore not attract much attention

There is a difference between detecting a stimulus and analysing it, and the lack of detail may not always affect the witness's ability to recall whether or not the object existed or occurred. The fallibility in witness evidence as to the presence or absence of a particular thing is likely to be in the witness's tendency to subconsciously "fill in the gaps" in the narrative and to falsely remember consistent objects as being present. In other words, the witness may falsely "remember" narrative-consistent objects that were not in fact perceived (for example, the witness may "remember" a duffle bag or a crow bar, when they may not have actually been present). The witness may also interpret something that the person was holding as a crow bar, when in fact they did not clearly perceive "as such at the time.

We could also assume that the typical events in a "break and enter" typification include the forcing of a door or window, entry, collection of items into a bag, and leaving the house. The witness may be inclined to interpret a person opening a window as a person "forcing" open a window, when they did not actually see evidence that the window was being forced open.

Based on the narrative typification we can also assume that the likely goal of a person breaking into a house is to steal items from inside the house. This component of the narrative typification will have an effect on which actions are likely to be seen as "expected" or "typical" and which cannot be explained by reference to the particular plan schema. For example, if one night a witness sees a person wearing dark clothing and a balaclava enter a house through a window only to emerge a few minutes later empty-handed, the witness may note this as unusual behaviour for a stereotypical "thief" in a "break and enter" narrative typification.

The witness is also likely to subconsciously invest the person breaking into the house with certain stereotypical characteristics. Whichever stereotype is instantiated will also have an effect on the inferred goals of the person in the series of events. For example, if the instantiated stereotype of a thief is a heroin addict who breaks into houses at night, the inferred goals might be to steal electrical equipment which can then be resold to obtain money to buy drugs. This might be relevant with respect to the way in which the witness interprets the thief's manner or movements. This could be quite important if there are allegations of aggravating circumstances such as violence or threatening behaviour.

What difference would it make if the witness had said that her first impression was that the man was her neighbour's son, who must have locked himself out of the house? First, one could assume that the witness would have paid closer attention to the characteristics of the person involved, in order to confirm her preliminary assessment that the person was her neighbour's son and alleviate subsequent concerns as to what the person was doing. Second, the witness would be less likely to interpret items that the person was carrying as weapons or tools used to break into a house. If she saw the person carrying something that resembled a crow bar, she would be more likely to pay attention to it, and be able to provide a detailed description of it, if she was unable to interpret it in terms of the instantiated typification. Third, the witness would tend to attribute events and goals that were consistent with the typification. Thus, the witness would expect that the son's goal was to gain access to the house. Once the witness saw that goal achieved, that is, the son enter the house, she would be less likely to continue her surveillance, not expecting the son to re-emerge from the window. If she later saw someone re-emerging from the window, she would be much more likely to pay close attention to the person and any items they were carrying, as this would be in direct contradiction to the previously instantiated typification.

As another example, let's assume that a witness has given evidence that she arrived at her friend's house to find the front door open. She walked into the kitchen and saw her friend lying on the floor. So far as the setting is concerned, we can assume that the witness's attention will have been drawn towards items that are unusual in terms of the normal "inventory" of kitchen items, such as a screwdriver. Similarly, the witness's attention is likely to have been drawn to something which is spatially unusual, such as her friend lying on the kitchen floor. Neither of these things are likely to come within the usual "narrative typification" of what can be seen in a kitchen. Further, the witness is not likely to pay much attention to normal kitchen items, such as coffee cups, a toaster, an oven, or a sugar bowl, so long as they are within the normal spatial boundaries of the kitchen narrative. (Something like the coffee cups, may turn out to be quite important if, for example, there was lipstick on both coffee cups, providing circumstantial evidence that there were two women in the room fairly recently).

We also need to consider the witness's initial assessment of the situation. If the witness has instantiated a "murder" narrative typification upon seeing her friend lying on the kitchen floor, she is likely to actively look for the weapon by which her friend was killed. The witness is also likely to actively search for signs of the presence of another person, who used the weapon to kill the victim.

Conversely, if the witness has instantiated an "accident" typification, he or she is likely to look for evidence of events which could explain the body on the floor. For example, the witness may look around the body and see a knife on the floor. The witness may then look for an explanation of why the knife is on the floor. Looking above the knife the witness may see that on the bench is a toaster which is lying on its side. The witness may then conclude that the victim was electrocuted while trying to extract toast from the toaster with the knife.

Information that is not interpretable in terms of the instantiated event schema does not receive much attention once the schema is activated. In the "murder" typification above, the witness may not pay much attention to the toaster lying on its side, because it does not appear to be relevant to the events which would normally give rise to a murder (although, if noticed, it may be interpreted in a manner consistent with the typification, or example as evidence of a struggle leading up to the killing of the victim).

If the witness has instantiated a "murder" typification and then sees a person running from the room, she is likely to infer that the person is running out of the room with the goal of escaping from the scene of the crime. The witness is also likely to actively search for confirmation of this stereotype by directing her attention to things such as blood on the person's clothing, how fast the person was moving and the type of clothing the person was wearing. Conversely, if an "accident" typification has been instantiated, the witness may infer that the person's goal is to get help, or to turn off the power supply if it appears that the victim has been electrocuted. In this situation, the witness is unlikely to pay much attention to the characteristics of the person running out of the room.

#### Conclusion

The application of narrative theory to witness evidence provides an interesting and useful extension to psychological research on schemas. It helps us to understand how a witness's story is constructed and reconstructed and to anticipate areas in which the witness's evidence is likely to be vulnerable. There is a need for further empirical research in this area. In particular it would be interesting to see if it is possible to identify some commonly held narrative typifications relating to different types of crimes. It would also be useful to compare laypersons' and lawyers' narrative typifications of particular crimes. This kind of ethnomethodological enquiry would at the very least serve to improve lawyers' understanding of the process of witness memory and testimony and may also, in doing so, improve the relationship between laypersons and participants in the legal system.