

# Stimulated Recall Narratives as Story-Telling: An Analysis of Coaches' Decision-Making Explanations

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**Abstract:** *Stimulated recall (SR) is a family of research methods for eliciting retrospective accounts of cognitive activity related to behaviour at the time of an event or episode. Limitations are acknowledged but found to be tolerable in comparison to alternative methods. Nevertheless, the resultant narratives have rarely been treated as problematic in relation to their adequacy, plausibility, completeness and utility; questions remain about managing the participant's response in terms of interacting, prompting and moving on, its relevance in relation to purpose, how to avoid secondary sense-making, and the basis on which to judge a helpful narrative. This paper examines the potential of treating the narrative as an explanation and invokes criteria of explanation and storytelling as a means to elicit and evaluate such narratives. A retrospective analysis of SR narratives by sport coaches is provided as an example of the application of storytelling criteria, highlighting causality-linkage, predicament, intention, case history and context as useful guides to evaluating such accounts. Particular attention is paid to the effect of the interviewer/questioner's credibility and perceived knowledge on the nature and form of the participant's response.*

**Key words:** Stimulated recall, narratives, storytelling, explanation, interviewer credibility, sport coaching

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## INTRODUCTION

Stimulated recall (SR) is best described as an umbrella term for a family of research methods (Zhai et al. 2024), used in both experimental and naturalistic research. The method can be used simply as a prompt to stimulate opinions or interpretations collated from similar experiences. However, our interest lies with SR procedures that involve inviting participants, when their recollections have been stimulated by a video recording of a particular occasion (or, for example, audio recording or documentation), to give an account of their cognitions at the time of the event. These are variously described as intentions, thought processes, reasoning, or decision making. In sport coaching, video

footage typically consists of a feature of a coach's practice. The video recording acts as a prompt and can be 'cued' by directing the participant's attention to selected episodes, behaviours or responses. Most often this is accompanied by, or further prompted by, researcher questioning. The output from this is a verbal account, which becomes a captured narrative.

Video stimulated recall (VSR) is an often-used method for eliciting retrospective accounts of cognitive activity as it relates to behaviour at the time of a particular event, episode or interaction. Most commonly, the intention is to move beyond mere description to seek interpretations or explanations for behaviour, responses or decisions taken (Nichol and Hall 2024; Sanchez and Grimshaw 2019). Its use is evident in education research (Zhai et al. 2024), medicine (Henry and Fetters 2012), and in a significant number of investigations into sport-related and sport coaches' decision-making research (Chapman et al. 2024; Hall et al. 2021; Harvey et al. 2015; Nichol et al. 2021; Stodter and Cushion, 2017; 2019). Despite its popularity, there has been an acknowledgment of evident advantages and disadvantages in relation to the conduct of SR procedures and research designs (Lyle, 2003; Nichol and Hall 2024; Stodter and Whitehead 2024). Such literature is not uncritical but the limitations of timing, memory decay, response bias, and post-hoc interpretation and rationalisation are found to be broadly acceptable in comparison to alternative methods.

The resultant narrative has not been treated as problematic; with very limited attention given to the perceived adequacy of the narratives, how their elicitation might best be approached, or what form of prompting might result in a relevant and useful account. To date, attention has been focused on the mechanics and efficacy of the procedures rather than the resultant quality of the output (Nash et al. 2022; O'Mahony et al. 2025; Stodter and Whitehead 2024). As a consequence, the genesis of this paper was a series of questions: (1) in relation to the purpose of the research, how do you know you are obtaining a relevant response?; (2) when should you stop the respondent's narrative?; (3) in what ways might you continue to prompt a further response?; (4) what constitutes a helpful narrative when explaining a decision-making episode?; and (5) on what basis might you consider that an appropriate response has been received? In relation to these questions, we pondered whether the researcher should make no such judgement, use their experience, or rely on the use of a suitable framework of prompts. Our initial musings ranged over the accuracy, completeness and substance of participant responses when taking part in SR-based research. The purpose of the paper, therefore, is to address a gap within the literature, in which SR narratives have been inadequately theorised, and to provide a rationale for the structure of interviews and an evaluation of the adequacy of the resultant narratives.

We make the assumption that SR methods are not simply a sophisticated form of interviewing (Dempsey 2010; Paskins et al. 2017). Particularly in relation to decision-making research (Lyle and Vergeer 2013), the intention is to facilitate the participant's 'reliving of' rather than 'reflection on' recent behaviour. SR narratives and the resultant transcripts are not, therefore, the same as those typically derived from interviews; these are most-commonly responses to direct questions (whether more open or closed in nature). The SR account is a recollection of cognitive behaviour during specific events/moments/incidents and the researcher is careful not to 'lead' the participant. Initial prompting, for example, "talk to me about that", invites a response without any implied 'direction'. The participant's initial responses are most often followed up by the interviewer's requests for clarification or further detail. This is the point at which the researcher needs to be careful that the recollection of cognitive activity at the time does not become a re-packaged account of a 'new' moment represented by the video recording (Lyle 2003; Nichol and Hall 2024).

The interaction between participant and researcher might be recognised as a form of reflective conversation (albeit one in which the participant's recollections are paramount). There is a body of recent work that provides some simple guidelines (Muir and Lyle 2025); for example, inviting the participant to 'go first' (any prior guidance from the interviewer may close down the breadth of the response), ensuring that the participant reacts to the video sequence rather than the interviewer's interpretation of the episode, and prompting without any judgemental language. Using a phrase such as, 'this didn't seem to work, can you tell me why?', involves a judgement by the interviewer rather than the participant. Minimal encouragement and questions that create a 'space' for the participant's responses may be more fruitful. Examples might be, 'what were you noticing?' or 'how did you experience that moment?'. This might be thought of as an attempt to work from in-to-out rather than from out-to-in. Crucially, the purpose is to open up dialogue rather than close it down, or 'reduce' it to pre-determined parameters. The role and behaviour of the researcher/interviewer is therefore acknowledged to be important in limiting bias or interference in the recall process (Lyle 2003; Stodter and Whitehead 2024). This is evident in the structuring of the SR event, the language used by the interviewer, and any 'channelling' of the participant's responses. The notion of 'co-construction' between participant and interviewer (Meier and Vogt 2015; Theys et al. 2022) may have disciplinary appeal but will require expert interviewing to avoid interference in the recall process. It is inevitable that the interviewer brings something to the encounter; more important is whose sense of what's going on do we privilege and prioritise as the narrative is created. A desire to meet participants 'where they are', without interference from 'where we are' is not unproblematic (Muir and Lyle 2025). In particular, we will focus, in the latter part of the paper, on the participant's perception of the knowledge and experience of the interviewer as a contributory factor in creating the narrative response.

To some extent the variety of purposes for which SR is used is reflected in the advice about interviewer questioning (which in itself would appear to represent a reductionist rather than expansionist or participant-led approach [e.g., Rowe 2009]). Zhai et al.'s (2024) review contrasts 'completely open' with 'general to specific' or 'specific to general' questions. Similarly, Griffioen et al. (2020) considered open-ended versus more-focused questions. The assumptions about how questions and analyses should be framed is captured by Gass and Mackay's (2000) assertion that unstructured responses do not always result in useful data but structured responses may limit the richness of the participants' responses. A brief review of relevant literature will reveal that the term 'semi-structured interview' is often used in accounts of research procedures and the subsequent transcripts are subject to either quantitative or qualitative/thematic analysis (Bruner et al. 2017; Burden et al. 2015). Coding and interpretation follow based on a predetermined framework derived from the substance of the research purpose or a more-open inductive process (Diaz 2022). Nichol and Hall (2024) suggest that there has been an over-reliance on positivist-inspired methods.

The focus of this paper is neither about the SR procedures themselves (including analysis) or the alignment between research questions and the choice of procedural approach. Nor is it an attempt to be prescriptive about interviewing techniques. The purpose of this paper is to raise questions about the trustworthiness and utility of the resultant narratives and to suggest a framework with which the researcher can evaluate the adequacy of narratives and support subsequent analysis. However, as Pawson and Tilley (1997) point out:

People are always knowledgeable about the reasons for their conduct but in a way which can never carry total awareness of the entire set of structural conditions which prompt an action, or an

appreciation of the full set of potential consequences of that action (p. 162). Consequently, we need to acknowledge the partial and fallible nature of the narrative accounts that are constructed from our individual experiences of a coaching event - and those of the interviewers/researchers. Nevertheless, this should not prevent us from aspiring to achieve more reliable and rich accounts. More specifically, the paper is designed to consider critically the composition of the SR narrative, to employ the devices of story-telling and explanation to provide an analytical framework, to illustrate the use of story-telling criteria in the analysis of sport coaches' narratives in relation to decision-making, and to emphasise the perceived knowledge and experience of the interviewer as a potentially limiting factor in obtaining a suitable response.

## **NARRATIVES AS EXPLANATION AND STORY-TELLING**

### **EXPLAINING**

We make an assumption that the narrative resulting from an SR procedure can be conceived of as an explanation and a story, and that this provides the basis for both prompting and analysis. This approach relies on the work of Klein (1998; Klein et al. 2019; 2021; 2014). We explore the notion of an 'explanation' as the basis for an SR response and the use of story-telling criteria as a basis of a framework for evaluating the quality of the response. An analysis of SR narratives is provided as an exemplar, using sport coaches' decision making as a relevant theme. This is intended to act as a 'check and challenge' mechanism to begin to address the issue of the adequacy of an SR narrative. In so far as the story-teller's response to a prompt may be conceived as simulating a prior event for the interviewer, this draws our attention to the explainer's perception of the receptivity of the interviewer. Adapting to this perception has the potential to impact the framing of the explainer's response. This is the reason for our later elaboration on the knowledge and experience of the interviewer.

The use of prompts such as, 'what were you thinking ...?', 'can you explain why ...?', or 'what was the reasoning behind ...?' can be interpreted as a request for an explanation. This is not entirely unproblematic, however. A distinction can be drawn between 'explanation as recollection' and 'explanation as sense-making'. Care needs to be taken that the latter risks an additional cognitive process that involves a retrospective interpretation, attachment of meaning, and perhaps potential bias induced by self-defence or rationalisation, and is a step beyond description or recollection that provokes a secondary re-ordering of recall (Klein et al. 2019; Urquhart et al. 2025). Clearly this is analogous to the potential for *post hoc* rationalisation acknowledged in SR (Lyle 2003; Nichol and Hall 2024; Stodter and Whitehead 2024). Nevertheless, we judge that explanation can provide a useful means of interrogating SR narratives.

It would be helpful to begin with the distinctions drawn by Klein et al. (2021) between global and local explanations; the former entails a principled, generalised account of how an entity or system functions, whereas a local explanation 'seeks to justify why specific actions were taken or decisions were made' (2021, p. 217). Thus, a VSR prompt may elicit a generalised account of, for example, a coach's reactions to a problem situation. However, of interest here is the 'local explanation', which is most analogous to the SR narrative and focuses on the particularity of the participant's thought processes during a specific episode or event. The explanations described by Klein and colleagues do not refer to retrospective accounts of specific events and are not, therefore, entirely representative of SR narratives. Nevertheless, the characteristics they associate with 'explaining' shed light on the quality of narratives.

Klein et al. (2021) identify 8 dimensions of explaining, which we have interpreted and elaborated below:

Table 1. Dimensions of explaining (adapted from Klein et al. 2021)

<b>Explanation dimension</b>	
The purpose of the explaining process	This is about a historical (but recent) recollection, intended to shed light of actions/decisions, and scaffolded by a set of research objectives.
The trigger for the process	Visual or other sensory prompts. The choice of prompts will need to be justified, and the causal factors identified within the explanation are likely to be of particular interest.
The ‘causal palette’	Refers to factors that impacted the participant’s perception of the outcome of the event/episode in question.
The type of mental simulation	This might be described as the ‘causal landscape’ or linkages involved in explaining decisions or behaviours. Care has to be taken with the dangers of ‘secondary interpretation’ rather than recollecting the ‘reasoning’ at the time of the event.
Entities involved in mental simulation	Who was involved in the event, what role did they play and what contextual factors were important at the time?
The number of entities and transitions	This can be conceived as ‘explanatory steps’, and refers to the number of links in the causal chain. ‘This led to this ...’. (Delving more deeply into the layers of explanation would be more appropriately dealt with in a subsequent interview.)
Explanation mechanisms	In this instance, we refer to the use of story-telling – recreating an account of an unfolding event and the cognitive behaviour associated with it.
Use of tacit knowledge	This may refer to both the use of tacit understanding when describing events to a listener and the participant’s reliance on tacit knowledge in making decisions. This is relevant to attempts to encourage introspection into behaviour and for the interviewer’s comprehension of explanations.

There are a number of features of explanations that are particularly relevant to the utility of SR narratives. Prompts for elaboration and subsequent analysis should focus on actionable causes (Argyris, 1996; Bingham, 2023); that is, those factors that are susceptible to change, repetition or intervention. Obviously, these will also be related to the specifics of a set of research questions. Where the causal factors are identified as part of a ‘causal chain’, it is important to give attention to the ‘causal connections’ that help to shed light on the combination of factors, and their inter-relationships, that lead to the ‘explanation’ for an event or episode. In this context, care must be taken to mitigate the

effect of interviewer prompts that reflect the interviewer's perspective or curiosity rather than the recollection of the participant. A further discrimination is that between trigger causes (those that contribute most heavily to the outcome, e.g., player mistakes) and enabling causes (precursors to an episode, e.g., established player abilities) (Klein, 2018).

Taken in aggregate, there are good grounds for believing that treating SR narratives, particularly when investigating decision making behaviour, intentionality or reasoning, as 'explanations' is a fruitful source of prompting strategy or evaluative criteria. This approach may help to evaluate the plausibility (to which we will return) and completeness of such narratives. Some further research is required to identify those particular criteria that may prove most helpful, e.g., causal triggers and emphasis on actional elements within the causal landscape.

### **STORY-TELLING**

We began the paper by highlighting the fact that the narrative accounts resulting from an SR protocol were rarely treated as problematic and that an evaluation of the quality (e.g., completeness, plausibility) was a necessary step prior to coding and analysis. Just as important is the utility of such an evaluation for informing the interviewer about the extent and direction of any follow up/elaboration prompts. Relying on the work of Klein (1998; Klein et al. 2019; 2021; 2014), we treated the SR narrative response as an 'explanation', and this permitted us to suggest a number of criteria that represented an appropriate explanation. We go on now to treat the resultant narratives as particular forms of explanation, that is, a story. Once again, our purpose is to identify criteria of story formulation that would assist us in evaluating SR narratives. We remain intrigued by the dilemma of deciding 'when to stop'. When is the story 'complete', rather than an immediately 'usable' response because it seems to address the interviewer's needs? A pre-emptive closing down of the participant's response may lose both the richness of response and the emergence of surprising or novel factors. Is it the participant or the researcher's decision as to the story's completeness?

In SR-based research into decision making or other cognitive mechanisms, the invitation to the participant is, for example, to 'tell me what you were thinking ...', 'why did you make that decision ...?', or 'talk me through the process ...'. The response may initially be longer or shorter and is most likely to be elaborated upon in response to follow-up prompts from the researcher. We characterised the SR narrative as an account of prior events or episodes provoked by a specific prompt and bounded, if often loosely, by the parameters of the research design and focus, and in a more or less coherent fashion. During the exchange, the participant is attempting to re-create in the mind of the interviewer/listener a sequence of events and the participant's agency in it. Not all SR responses may be classified as stories but we contend that they will display many of the characteristics of a story.

Moscardo (2021) argues that a narrative is simply a related sequence of events, whereas a story is characterised by description, characters and consequences (Boje 2008). Its purpose is not to entertain but to provide an account that is relevant and 'fit for the research purpose'. Jamieson (2013) describes a story as a 'construction of the mind', a mental image containing characters, a temporal aspect, evidence of agency, and relevance and meaning. Klein (1998) provides a detailed account of story 'ingredients' (see Table 2).

SR research can be carried out in experimental or laboratory conditions. However, for the most part, the story form recounts a happening in a naturalistic (uncontrolled) context. Being interested in cause

and effect (i.e., doing this... led to that...) and wishing to account for all of the contextual factors that may have influenced the course of the story, which may be difficult to disentangle in the natural context, can therefore become very detailed - even confusing. There is also a desire to elicit or explore tacit assumptions and knowledge. The resultant need to allow the story to flow, expand, elaborate and be further prompted by an interviewer may be at odds with a desire by the interviewer to seek a 'reduced' explanation in order to alleviate the confusion of overly-detailed explanations. This seems immediately to negate the richness of causal relationships that the researcher may seek. However, Klein (1999) also warns against stories that are too confusing and mask the underlying causal relationships.

The desire to elicit a 'manageable' story may be seen as inviting (or encouraging) the storyteller to offer syntheses, summaries and connections (sense-making) that should be the subsequent role of the researcher (but, of course, eliciting the participant's interpretations is important). Any sense of inviting an abridged or 'clean' version of a story may not only rely on the participant's verbal dexterity and intellectual resources but, crucially, invite a secondary reflection on and analysis of the prompted event rather than an 'at the time' account. In order to evaluate further the quality of the participant's response, Klein (1999, p.182) offers an additional set of criteria, although these may be difficult to verify and rely on the interviewer's experience. He identifies plausibility (the explanation is believable), consistency (there is some correspondence with other accounts), economy (the story is comprehensible but with the risk of detail versus reduction), and uniqueness (its particularity and originality is evident, not a repeated story).

Table 2. Story ingredients (elaborated from Klein 1998)

<b>Ingredients</b>	
Agents	Those who are involved in and mentioned in the story.
Predicament	The problem, action or issue that provoked the invitation to respond.
Intention	The objective underpinning the individual's response to the predicament.
Actions	Actions, behaviours, decisions enacted by the storyteller.
Objects	The resources that the storyteller calls upon (this can be cognitive or metacognitive skills).
Causality	The links drawn between actions and outcomes – 'this happened because ...'.
Context	Description of all of the contextual features that impact on the genesis and unfolding of the story.
Surprises	There may be an element of the unforeseen in the story – partly because of its singularity, and partly if it appears to disabuse the interviewer of any preconceptions. [The storyteller may 'play down' the unexpected in an attempt to demonstrate a measure of control of the situation.]

The criteria for an explanation and for storytelling would appear to have sufficient similarities to offer useful mechanisms for assisting the SR interviewer during the process and for making judgements about the usefulness, apparent veracity and completeness of the participant's response to an SR prompt. The criteria provide a rationale for the interviewers' additional prompting and requests for elaboration – a framework that is, crucially, divorced from the focus of the research. Although not

completely synonymous, there are sufficient commonalities to form an exploratory framework for evaluating SR responses based on problem identification and intended solution, context features (including key agents), casual links and reasoning, triggers/catalysts to action, and tacit underpinnings and assumptions.

### **INTERVIEWER KNOWLEDGE AND EXPERIENCE**

Before moving to a brief example of narrative analysis, we will explore the issue of the SR interviewer's knowledge and experience about the process being explained, as this has the potential to impact the storyteller. Many papers, although not all, will state that the interviewers have received 'training', but the nature of the training is rarely specified and, in our reading of the literature, the interviewer's prior knowledge and experience is never treated as problematic. We admit that prior to crafting this paper, we had not realised the significance of the interviewer's 'technical' knowledge and experience, i.e., immersion in and awareness of the subject being investigated. Interviewer effect has a substantial literature and focuses on the extent to which the interviewer's perceived characteristics or interviewing behaviour and technique have an effect on the interviewee's response (e.g., Dianiska et al. 2021; Kühne 2023; Olson et al. 2020; Schniedeberg and Schröder 2024). This is evident in all forms of interviewing (e.g., surveys, recruitment, and police interviewing). The problematic issues are centred on the interviewees' perception of 'what the interviewer wants to hear' and tailoring their responses to suit (Zhai et al. 2024).

In the SR procedure the researcher is exploring a retrospective introspection by participants into their accounts of thinking and actions specific to a particular (often video-prompted) episode. The explanation that follows has a 'technical' element; that is, it will revolve around interpretations of behaviours, context, reasoning and associated specialist knowledge that is specific to sport, medicine, counselling, teaching and so on. This raised for us the question of the participant's perception of the extent to which the interviewer will understand the explanation offered. There may also be more practical effects: the capacity to generate follow-up questions, identifying key features of the explanation, recognising where participant's expertise has been brought to bear, and the likelihood of effectively 'filling in' gaps in the narrative. There are also potentially significant misgivings about the interviewer's role in SR, if the interviewer's questioning leads the participant to respond, not to their reflection about the original episode, but to the interviewer's interpretation of the episode.

We might reasonably expect that explanations/stories will require a richness of detail, context and causal connections to convey adequately the participant's recollections. The SR 'setting' is a social encounter and the explainer will take into account the (perceived) knowledge and resources of the listener (Klein et al. 2021). Although the narrative may remain an 'at the time' recollection, rather than a re-construction, the explainer's assumptions about and use of language and meaning, and level of detail provided may impact on the narrative. We reflect too on the impact on the social construction of the encounter, and the impact on the detail of the narrative, in circumstances in which the interviewer has witnessed 'live' the episode in question, in comparison to one in which the interviewer has not 'shared' the experience. Klein et al. (2014) found that interviewees responded in more depth to what they perceived to be a sophisticated audience. This suggests that the researcher's perceived credibility, specialist knowledge and experience is likely to influence the way that the narrative is generated and conveyed. The researcher is not considered 'passive' by the explainer, i.e., simply recording or note taking. We suggested earlier that the participant was mentally simulating the episode for the listener; it follows that the participant will take into account the listener's capacity to understand the explanation

(this may be a mixture of intuition and interviewer interjections). This may be extrapolated as ‘explainers should be able to focus on recounting their recollections, and using their preferred language, without having to ‘explain’ it to the listener’.

Explaining one’s thought processes during an SR session may therefore involve the explainer juggling sufficient detail to reflect complexity and subtlety (tacit knowledge) versus an ‘understandable’ and sufficiently comprehensive explanation. We may speculate that a ‘better’ (richer, more complete, more detailed) explanation will be generated if the exchange with the interviewer is perceived to be based on shared knowledge and empathy for the context. The interviewer is, therefore, neither passive in credibility nor in practice. For example, subsequent prompts and follow-up questions may depend on the interviewer’s judgement about the completeness and plausibility of the response (Klein et al. 2023), which, in turn, suggests that the interviewer needs to know something about the context. We can also speculate that a truly ‘neutral’ position is difficult to maintain if the interviewer is aware of the research question. We could find little to support a further dilemma about whether or not an SR narrative should be approached critically (or perhaps, more realistically, to what extent it should be), and whether the judgement of ‘quality’ should be addressed through concurrent questioning or as a subsequent evaluative element to the research summary.

#### **EXAMPLE OF NARRATIVE ANALYSIS**

What follows is a secondary analysis of an SR-based study into experienced volleyball coaches’ decision making during games (Lyle, 2002; Lyle, 2003). Although it may seem paradoxical to employ a statistical analysis to exemplify an element of largely qualitative methodology, our intention is merely to illustrate those features of story-telling that became evident in the coaches’ narratives and to suggest that they be used (non-statistically) as part of the interviewer’s skills armoury. We are not suggesting that SR narratives are subject to this form of analysis, but to highlight those features of story-telling that might be used by interviewer’s to help conduct their interviews.

Table 3. Storytelling framework used in the analysis

<b>Characteristic</b>	<b>Elaboration</b>	<b>Volleyball</b>
Agents	Individuals referred to in explanations of action decisions	Players; opposition; coaches
Predicament	Identification of problem or concern	Underachieving targets; score; momentum; injury
Intention/Goal	Statement/restatement of goals/objectives	Outcome; model of performance; targets
Action Chain	Prior actions; identification of precursors; serial element	Player performance; tactical changes; substitutions; coaching behaviours
Causality-Linkage	'this because ...'; link drawn between observation and action; reference to reasoning	
Context-Enabling Conditions	Identifying action decision catalysts; 'will ... if ...'; priority triggers	Factual or evaluative description of game condition; trends/patterns; player resources
Uncertainty	Recognition of element of 'didn't anticipate'; acknowledgement of unforeseen impact	Performance not matching game model; opposition actions
Future Element	Outcome orientated future statements; prediction of impact of decisions	Outcome predictions; score related; projected impact
Alternative Coach Action	Identification of alternative decision	
Re-statement of Objectives	Objectives/goals/targets changed	
Context Markers	Actual 'values' for describing action context	'Trigger' points – score; momentum; mistakes
Possible Scenarios	Identification of future course of action	What if ...; consequence of coach's action decision
Case/Historical	Recognition/matching to previous case	Previous game; previous player behaviour

'Match coaching' in volleyball is an attempt to manage the competition to one's advantage, while operating within conditions of uncertainty, active opposition, variable player performance and uneven resources. The time pressures involved and the absence of information mean that the coach's decision making is a mix of the deliberative and the non-deliberative (Kahneman 2011). Although the action decisions available to the coach are limited, it is clear that the complexity of the interacting and interdependent performance variables presents a challenge to the coach's expertise (Mozolev et al. 2023). Match coaching or 'contest management' is an essential coaching competence and the lessons learned from research should form a significant part of coach education and development. The identification

of key action decision moments in the game and the coaches' cognitive responses was the catalyst for the original study (López-Serrano et al. 2022).

Table 4. Results of the coding exercise to identify story-telling elements

	<b>Category</b>	<b>Meaning Units (1)</b>		<b>Number of References (2)</b>		<b>Proportion of all narratives (3)</b>
1	Agents	50	8%	37	10%	53%
2	Predicament	61	10%	44	11%	63%
3	Intention/Goal	53	9%	40	10%	57%
4	Action Chain	36	6%	24	6%	34%
5	Causality-Linkage	146	24%	63	16%	90%
6	Context: Enabling Conditions	55	9%	35	9%	50%
7	Uncertainty	6	1%	6	2%	9%
8	Future Element	52	9%	36	9%	51%
9	Coach Alternative Action	8	1%	8	2%	11%
10	Re-statement of Objectives	26	4%	20	5%	28%
11	Context Marker	19	3%	15	4%	21%
12	Possible Scenario	31	5%	21	5%	30%
13	Case /History	64	11%	39	10%	56%
	<b>Total</b>	<b>605</b>	<b>100%</b>	<b>388</b>	<b>100%</b>	
	<ol style="list-style-type: none"> <li>1. Distribution of the total number of meaning units by story-telling category.</li> <li>2. Distribution of the number of times the category is referenced (single or multiple meaning units).</li> <li>3. Distribution of story-telling categories as a percentage of the total number of possible references per narrative (i.e., proportion of the 70 narratives)</li> </ol>					

The purpose of this brief example is to illustrate how the storytelling criteria previously described (Klein 1999) can be used to evaluate certain qualities of SR-generated narratives. The example moves directly to the analysis, with limited reference to the study itself. Narrative accounts of self-identified decision making incidents from the final two sets of a game were generated by video-replay stimulated recall (70 incidents from 12 coaches). The coaches were invited to provide their reasoning for the decisions taken. In the original study, the 70 narratives were coded, using a framework to investigate the applicability of potential models of non-deliberative decision making, resulting in the identification of 835 meaning units. This brief illustration depicts the secondary analysis of these meaning units to evaluate their storytelling qualities. Klein's (1998) categories of story-building were amended to embrace sport-specific and dynamic/continuous action. The emphasis, therefore, is on the 'form' of the narratives, their composition and story-building character, rather than their study-related content. Was there sufficient correspondence with the criteria for them to be considered 'stories'? What features

of decision making do coaches in this example include in their explanations and, as a consequence, how might such a framework help interviewers in similar SR situations encourage participants to describe their thinking.

Table 5. Rank order of most common categories by prevalence

Order	Category by % of total number	Categories by % of all narratives
1	Causality-linkage	Causality-linkage
2	Case/History	Predicament
3	Predicament	Intention/goal
4	Context	Case/History
5	Intention/Goal	Agents
6	Future element	Future element
7	Agents	Context

Note: The same top 7 categories account for 80% of total meaning units and 76% of the number of times the category is referenced in each narrative.

Table 3 identifies the amended framework of storytelling elements and illustrates their application in volleyball coaching. Simple descriptive statistics are provided merely to illustrate the prevalence of each element of storytelling in the coaches' narratives (see Tables 4 and 5). However, the scale of the distribution of the total number of meaning units can be distorted by the length of the explanation. For example, it is likely that some categories, such as problem identification, will require a lengthier verbal account than others. For this reason the second calculation, that is, distribution by reference to a storytelling category (with single or multiple meaning units) is perhaps a more accurate account of the content of the narrative. Similarly, the procedures themselves are likely to impact the explanatory emphasis. Inviting a retrospective narrative explanation would be likely to be reflected in the substance of the explanation. For example, since the account was retrospective, the element of backward reasoning and recollection is likely to be matched by the element of futurity (since the outcome of decisions taken could now be taken as a given). Each of the 'incidents' had led to an action decision by the coach, and the procedures asked the coaches to 'explain' the circumstances surrounding the decision. The emphasis on 'explanation' may, therefore, also have pointed to the likelihood of 'causality' in the narratives.

The purpose of the exercise was to illustrate the correspondence, or perhaps 'goodness of fit', between a set of VSR narratives and storytelling criteria, and subsequently to consider whether such a framework would provide a useful basis for interviewers in eliciting and evaluating such narratives. In relation to the framework for explaining (Table 1), the causal palette is evident in the prevalence of the causality-linkage and sequence of actions (why did it happen that way?). Reasoning is also evident in the triangulation of and reference to predicament (problem), case histories and context. More specifically, it seems that the coaches in the study created narrative accounts that could be captured, in analysis, by storytelling elements. A significant proportion of the narratives could be characterised by causality-linkage, predicament, intention/goal, case history, agents, future element, and context.

## DISCUSSION AND IMPLICATIONS

There is no claim here to validate this particular framework of storytelling criteria, and in the context of an SR interview that invites a retrospective recollection of thinking and actions, it may not be surprising that the resultant accounts could be described as stories. However, the attention to such a framework was prompted by the absence of attention to the substance and quality of the narratives that resulted from SR procedures. The use of such a framework is merely offered as a possible support for interviewers. It may be helpful, therefore, for interviewers to elicit/reinforce/notice/prompt the priorities, in plain language, of the perceived problem, precursors related to prior events or individual's histories, reasoning behind actions taken in terms of cause-effect-solution, and specific triggers that prompted both the need for action and the substance of that action.

Perhaps more importantly, such a framework provides lessons for the conduct of follow-up prompts. Interviewers should ask themselves which of the elements either have not been identified (e.g., the perceived predicament/issue) or might usefully be further elaborated (e.g., causality-linkage or context triggers). In conducting the SR procedure and engaging in follow-up prompts, interviewers will be making judgments about plausibility, consistency, completeness and uniqueness, and such judgments may be aided by reference to the storytelling framework.

We should note, however, that the role of the interviewer may be constrained by the protocols adopted for the SR procedure. The use of structured, or even semi-structured, questioning may limit the opportunity for interviewers to elicit the 'whole story'. The active role of the interviewer also highlights the issue raised earlier about their perceived credibility, knowledge and experience (and, perhaps, prior immersion in the site of the research). It was suggested that the participant's perception of the interviewer's subject-related knowledge may influence the richness, subtlety and tacit insight of the narrative; in other words, the participant may tailor the response to the perceived understanding of the interviewer. The interviewer's experience and subject knowledge may also impact their capacity to offer appropriate prompts and make judgements about plausibility, completeness and so on. One caveat to this is that a deep knowledge of the focus of research may tempt the interviewer to seek responses to questions that depend on the interviewer's interpretation of events, rather than a more-neutral request for elaboration of the participant's experience of the episode. There may be a co-constructed understanding of the balance of economy, conciseness and comprehension, and the desire to elicit the richness of detail.

This is the first paper to use the structure of explanations and the elements of story-telling to provide a means of evaluating the adequacy of SR-derived narrative accounts. It suggests that, in evaluating and analysing SR-derived narratives, there would be value in attending to the 'structure' of the narrative in addition to its research-topic-focused content. While attention is often given to the 'prompting' of interviewers in relation to key moments and greater depth of response (Quick et al. 2026), the criteria of explaining and story-telling provide an additional evaluative agenda. Such a proposal adds to the necessary interviewing expertise and domain-specific knowledge required of interviewers.

Treating the SR-derived narrative as storytelling offers the potential for using the storytelling framework to evaluate the quality and utility of the narrative, and for employing the storytelling elements as useful prompts to further questioning. We note that interviewers will need to make these judgements 'in the moment', and we note that listening, intervening, asking or not asking are also

forms of judgement and are inescapable and woven into the encounter. Our contribution to the field is to suggest that interviewers would benefit from engaging with the issues we have raised when eliciting and making judgements about SR-derived narratives and when reflecting on their conduct of SR interviews. However, we also extend the debate, and perhaps question some of the basic tenets of SR, by querying whether having selective features of storytelling ‘on the table’ for both the interviewer and interviewee to engage with may elicit a worthwhile account of the episode in question. Such an approach may be more intensive and rely on skilled interviewers, but result in a more insightful and useful narrative, within which the narrative element of recollection can be married to, but be recognisably discriminated from the element of sense-making.

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