

You have downloaded a document from RE-BUŚ repository of the University of Silesia in Katowice

Title: The effects of question formulation and information content on the accuracy of eyewitness recall in light of "script theory"

Author: Joanna Koczur

Citation style: Koczur Joanna. (2019). The effects of question formulation and information content on the accuracy of eyewitness recall in light of "script theory". "International Journal of Legal Studies" (2019, no 2(6), p. 41-51), 10.5604/01.3001.0013.7407



Uznanie autorstwa – Użycie niekomercyjne – Licencja ta pozwala na kopiowanie, zmienianie, remiksowanie, rozprowadzanie, przedstawienie i wykonywanie utworu jedynie w celach niekomercyjnych. Warunek ten nie obejmuje jednak utworów zależnych (mogą zostać objęte inną licencją).









Received: 15 November 2019 Revised: 11 November 2019 Accepted: 20 December 2019 Published: 31 December 2019

THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY"

WPŁYW SPOSOBU FORMUŁOWANIA PYTAŃ ORAZ ICH ZAWARTOŚCI INFORMACYJNEJ NA POPRAWNOŚĆ RELACJI ŚWIADKÓW NAOCZNYCH W KONTEKŚCIE TEORII SKRYPTÓW POZNAWCZYCH

Joanna Koczur

PhD, Faculty of Law and Administration, Institute of Law, University of Silesia in Katowice / Poland ORCID: https://orcid.org/0000-0002-1117-4941 * Corresponding author: e-mail: joanna.koczur@us.edu.pl

Abstract:

The reported study is part of an empirical project examining the effects of a chosen interviewing method, including the formulation and information content of questions, on an honest eyewitness recall. An experiment was carried out on 130 subjects. 50 subjects described how they imagine a typical car robbery and the remaining 80 were divided into two groups. Both groups watched the same film clip of a brazen car robbery. Subsequently, each group was asked a different set of questions about the film. The main purpose of this study was the analysis of the impact of scripts and misinformation on witnesses' recall of an event. The findings of this study may prove particularly useful for interviewers who are committed to eliminating mistakes from witness statements

Keywords: witness, witness recall, interview, scripts, misinformation, questions

Streszczenie:

Prezentowane w niniejszym artykule badania są częścią projektu badawczego, dotyczącego wpływu dobranej metody przesłuchania na poprawność relacji świadków szczerych, w tym rów-

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Miedzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

© 6 6 This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51

nież wpływu sposobu formułowania pytań oraz ich zawartości informacyjnej na relacje świadków szczerych. Przedstawiony w niniejszym artykule eksperyment został przeprowadzony na grupie 130 osób. 50 osób zostało poproszonych o opisanie tego, w jaki sposób wyobrażają sobie typową kradzież z samochodu, z kolei pozostałych 80 probantów podzielono na dwie grupy. Każdej z dwóch grup zaprezentowano ten sam krótki materiał filmowy przedstawiający kradzież z samochodu. Następnie każdej z grup na dwa różne sposoby zadano pytania dotyczące obejrzanego materiału filmowego. Głównym celem przeprowadzonego eksperymentu była analiza wpływu schematów poznawczych oraz dezinformacji zawartej w pytaniach na relacje świadków o zdarzeniu. Ustalenia dokonane na podstawie przeprowadzonych badań mogą okazać się przydatne dla przesłuchujących w celu eliminowania błędów w relacjach świadków.

Słowa kluczowe: świadek, relacja świadka, przesłuchanie, schemat poznawczy, dezinformacja, pytania

Statement of the problem in general outlook and its connection with important scientific and practical tasks

This paper is a presentation of an empirical study conducted at the Institute of Law, Faculty of Law and Administration of the University of Silesia in Katowice. The empirical study examines the influence of question formulation as well as the information content of questions on the accuracy of eyewitness recall through the prism of the "script theory". This study emerged as part of a larger empirical project regarding the effects of interviewing methods on the accuracy of honest eyewitness recall. D.E. Zulawski and D.E. Wicklander clearly and concisely define the concept of an eyewitness interview as: "(...) a fact-gathering process that attempts to answer the questions: who, what, where, when, how, and why" (Wicklander D.E., Zulawski D.E., 2002, p. 187) and the concept of a witness as "(...) a person who responds to questions posed by the interviewer" (Wicklander D.E., Zulawski D.E., 2002, p. 187). The main purpose of the experimental study presented herein was to analyze the impact of scripts and misinformation on witnesses' recall of an event. Therefore the results of this study may be helpful to interviewers conducting witness interviews.

Analysis of latest research where the solution of the problem was initiated

The concept of scripts is a crucial component of the theoretical background of this empirical study. In cognitive psychology, a script is the knowledge of stereotyped event sequences. This knowledge is interwoven with our experience. A script (schema) is a representation in memory of the actors, objects and a standard sequence of actions

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

© 6 6 This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY"; International Journal of Legal Studies, 2(6)2019: 41 - 51

typically comprising an event (Abelson R., 1981, p. 715). Many recent studies underline the role of scripts in the process of storing and organizing information in memory, categorizing and making sense of new pieces of information as well as facilitating the process of recollection. People usually revert to scripts, which encode prior experience, to process and organize new information (Granhag P.A., Ask K., Giolla E.M., 2014, p. 550). According to D. Walton who defines the term in the context of artificial intelligence, a script codifies a stereotypical sequence of actions that are typically involved in a particular event and which are common to most users of a language (Walton D., 2008, p. 105-106). Although there are events most people have never witnessed, such as a burglary, it is still possible to imagine what these events typically entail. Events inconsistent with pre-existing scripts are prone to become distorted during recall. In effect, people's memories of new events are usually reflections of the scripts that they have previously generated rather than memories of events as they actually happened. (Granhag P.A., Ask K., Giolla E.M., 2014, p. 550). This phenomenon is most accurately demonstrated by E. Loftus in her classic experiment aimed at investigating if changing the wording of a question would have an impact on subjects' responses (Loftus E., 1996, p. 96-97). The experiment consisted of forty-five participants watching a short video that included a car accident and, subsequently, answering questions about the contents of the video. One of the questions was as follows: "About how fast were the cars going when they hit each other?" The verb "hit" was then replaced in the follow-up questions with the words: "smashed", "collided", "bumped" or "contacted". The outcome of the experiment was consistent with the expected scripts for a serious accident. Subjects who were asked if the cars had "smashed into" each other estimated the speed as higher (40,8 mph), whereas participants who were queried with the word "contacted" provided lower speed estimates (30,8 mph) (Loftus E., 1996, p. 96). The subjects were questioned about the film again, one week later, and asked if they had seen broken glass at the accident scene (although there was no broken glass in the film). The subjects who had been queried with the "smashed" question more often reported seeing broken glass. Such an outcome may find its explanation in the fact that broken glass is usually associated with accidents caused by high speed (Loftus E., 1996, p. 77-78).

To sum up, the introduction of non-existent elements into witnesses' recollections during questioning can cause these elements to become incorporated into the witnesses' memory, thereby giving rise to false beliefs and memories. S. Kassin defines memory

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY"; International Journal of Legal Studies, 2(6)2019: 41 - 51

as a dynamic system constantly reshaped by the clashing of pre-existing memory structures and the new ones, introduced by new experience, or as he puts it: "(...) an active construction of the past that alters reality in way that is consistent with both prior expectations and postevent information" (Kassin S., 2004, p. 233). New information may come from various sources like newspapers, television or conversations with other witnesses. Questions constitute another influential source of new information as the paper shall further demonstrate.

Aims of paper. Methods

The main goal of the author's own empirical study was to analyze the impact of scripts, question formulation and the information content of questions on the accuracy of witness recall. For this purpose, the following questions (hypotheses) were formulated:

- 1. Does the level of response accuracy depend on the elements which comprise an event (elements consistent or inconsistent with the pre-generated script of the event)?
- 2. Does the presence of misinformation in questions influence the level of response accuracy?

For the purpose of this experimental study, the term 'misinformation' was understood as any information included in the question which was inconsistent with the sequence of events for a particular situation but consistent with the pre-generated script of the event (the role of misinformation was to activate the script).

The term 'a script' of an event was used to signify stereotyped knowledge about the standard sequence of events for a car robbery.

In view of the fact that people's memory typically relies on scripts for most social events, including crimes, the initial stage of the present study focused on identifying the script for a chosen crime event. For this purpose, a group of 50 students was asked to describe how they imagine a typical car robbery. The car robbery script derived from this study was also employed in other empirical studies.

The next step involved filming a short video based on the script, specifically for the needs of this study. The video included elements consistent and inconsistent with the pre-generated event script.

The video, which showed a brazen theft, was subsequently presented to a group of 80 students (48 women and 32 men). The subjects' age ranged from 19 to 22 years old. Participants had secondary or higher education.

The students were then divided into two groups. The first group comprised of 25 women and 15 men. The second group consisted of 23 women and 17 men. After two

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

© 55 This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51

weeks group, one answered 16 script – consistent questions about the content of the video (the questions are listed below, in Table 1). All the questions posed to group one were consistent with the predetermined cognitive script of the event and concerned the script-consistent elements of the video. These questions required a Yes/ No response, were neutral and concerned the script-consistent elements. The questions in group one did not contain misinformation, false assumptions and non-existent objects.

	PZ*	NPNZ**	No answer / I don't remember
Was the car parked at the housing complex	:?		
2. Was the robbed vehicle a luxury car?			
3. Was the stolen item a handbag?			
4. Did the person robbed call for help?			
5. Was the perpetrator male?			
6. Had the perpetrator looked around before h	ne committed	the robbery?	
7. Did the perpetrator act quickly?			
8. Did the perpetrator leave the scene immedi	ately after th	e robbery?	
9. Were there any direct witnesses to the incid	dent at the sc	ene?	
10. Did the victim's car have tinted windows?	?		
11. Was the item stolen from the car trunk?		•	·
12. Did the victim arrive to the parking lot ald	one?	•	_
13. Was the perpetrator holding a black briefo	case in his ha	nd?	
14. Was the perpetrator accompanied by any	co-perpetrate	ors who kept wa	atch while he was committing the robbery
15. Did the perpetrator suffer any injuries dur	ing the robb	ery (like cuts)?	
16. Did the perpetrator pass the loot on to a th	nird party im	mediately after	committing the robbery?

Source: Compiled by the author.

Abbreviations used in Table 1:

*PZ – correct answer, in line with the cognitive script.

** NPNZ – incorrect answer, inconsistent with the cognitive script.

The 16 questions posed to the second group of students (presented below, in Table 2) contained additional, misleading information and concerned the elements inconsistent with the script (not in line with the script). The phrasing of the questions posed to the second group was slightly altered by means of the following strategies: misinformation, false assumptions, introduction of non-existent actors and objects absent from the video which were consistent with the script and which were intended to prompt respondents to answer in a particular way (like policemen, crowbar or tracksuit hood), introduction of false alternatives (see the question concerning the color of the car).

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51

Table 2. Model form for the analysis of experiment results for group two.

	PNZ*	NPZ**	No answer/ I don't remember
1. What was the reason why the victim of the robbery for	rgot to close the	e car?	
2. Was the incident, despite not being monitored, spotted	by any witness	ses?	
3. Was the color of the robbed car silver or red?			
4. Was the stolen mobile phone located at the front section	on of the car?		
5. Did the perpetrator, who looked inside cars through th	e windows as h	e passed by, ha	ve any accomplices?
6. Was the perpetrator's tracksuit hood pulled up over hi	s head?		
7. What color was the tracksuit worn by the perpetrator?			
8. From which side was the car door forced open by the	perpetrator who	was looking fo	or a way to collect the loot?
9. How fast did the perpetrator circle the victim's car?			
10. Did the perpetrator leave the scene immediately after	getting into his	s car?	
11. Why didn't the person who drove by at the time, take	e notice of the r	obbery?	
12. Did the perpetrator hide the loot in the pocket of his	trousers?		
13. Did the victim of the robbery fall into a panic after fi	nding out about	the robbery?	
14. Which of the passers-by was asked for help by the vi	ctim in calling	the police?	
15. How long did the robbery take place?			
16. Did the policemen arrive at the scene immediately?			

Source: Compiled by the author.

Abbreviations used in Table 2:

*PNZ – correct answer, inconsistent with the cognitive script.

** NPZ – incorrect answer, consistent with the cognitive script.

All participants were honest in answering questions. The data collected on this stage of the experimental study allowed for the examination of the impact of scripts as well as the formulation and information content of questions on the degree of response accuracy.

Presentation of the main research material with a complete substantiation of obtained scientific results

The results of the author's own study are presented below. The types of answers given by participants in group one and group two are presented in Table 3 and Table 4, expressed as a percentage and in numerical form. A statistical analysis of the obtained results is presented in Tables 5-9.

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Miedzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

© 0 0 This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51

Table 3. Response types in the first group.

	Response types					
	Correct	Incorrect	"I don't remember"			
Questions (16) concerning the script-consistent elements (neutral questions).	536/640 (83,75%)	94/640 (14,70%)	10/640 (1,55%)			

Source: Compiled by the author.

Table 4. Response types in the second group.

	Response types					
0 1 40	Correct	Incorrect	"I don't remember"			
Questions (16) concerning elements inconsistent with the script (misleading questions).	298/640 (47%)	315/640 (49%)	27/640 (4%)			

Source: Compiled by the author.

The results of the experimental study for group one and group two confirmed that scripts and the formulation of questions as well as their information content are factors with a significant influence on the proportion of correct and incorrect answers. The level of response accuracy for group one which was about 84% (see Table 3) was almost two times higher than in group two, in which only 47% of answers were correct (see Table 4). The percentage of incorrect answers in group two, which received misleading questions, was higher than in group one (about 49%, whereas in group one it was only 14,70%). The results demonstrate that the majority (84%) of subjects answered correctly if the questions were consistent with the script and were not misleading. In the group which received misleading questions only 47% of students answered correctly. It is, therefore, reasonable to speculate that if the participants had been guessing they would have given more accurate answers.

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

© 0 0 This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY"; International Journal of Legal Studies, 2(6)2019: 41 - 51

nernational Journal of Legal States, 2(0)2019.

Descriptive statistics and statistical analysis.

The results were subjected to statistical analysis. The dependent variable was "the accuracy of recalls". The dependent variable was operationalized by means of a questionnaire called "The Test of Memory." The following three subscales were distinguished within the variable:

- subscale of correct responses;
- subscale of incorrect responses;
- subscale of "I don't remember" responses.

Table 5. Descriptive statistics (Group 1).

	N	Minimum	Maximum	Range	Mean	Standard deviation
Correct re- sponses	40	10,00	16,00	6	13,40	1,69161
Incorrect re- sponses	40	0	6,00	6	2,35	1,49443
"I don't re- member"	40	0	2,00	2	0,25	0,54302

Source: compiled by the author.

Table 6. Descriptive statistics (Group 2).

	N	Minimum	Maximum	Range	Mean	Standard deviation
Correct re- sponses	4 0	1,00	13,00	12	7,45	2,75448
Incorrect re- sponses	4 0	1,00	15,00	14	7,875	2,90170
"I don't re- member"	4 0	0	3,00	3	0,675	0,94428

Source: compiled by the author.

The main independent variable was the formulation of questions and information content. Two types of questions were employed: neutral and misleading questions. The content of neutral questions was consistent with the cognitive schema for the event. The content of misleading questions was inconsistent with the cognitive schema for the event and involved misinformation.

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

® ô ô ô This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51

Table 7. Statistically significant differences (correct responses).

Ī	Correct	95% confidence in-		95% confidence in-		95% confidence in-		95% confidence in- t		df	Significance	Mean	Standard	The
	responses	terval						deviation	standard					
									error of					
									the					
									mean					
ſ	Group 1	4,95447	6,94553	12,089	39	0,000	5,95000	3,11284	0,49218					
	and													
	group 2													

Source: Compiled by the author.

Table 8. Statistically significant differences (incorrect responses).

Incorrect responses	95% conf terval	idence in-	t	df	Significance	Mean	Standard deviation		nd- ror the
Group 1 and group 2	- 6,51535	- 4,53456	- 11,284	39	0,000	- 5,52500	3,09663	0,48962	

Source: Compiled by the author.

Table 9. Statistically significant differences ("I don't remember" responses).

"I don't remem- ber" re- sponses	95% conf terval	95% confidence interval		df	Significance	Mean	Standard deviation	The stand- ard error of the mean
Group 1	-	-	-	39	0,018	- 42500	1,08338	0,17130
and group 2	0,77148	0,07852	2,481			0,42500		

Source: Compiled by the author.

Student's t-test was employed to determine if results differed significantly between group one and group two. Statistically significant differences were observed in the number of correct responses as visible in Table 7. Statistically significant differences were also observed in the number of incorrect responses (see Table 8). Statistically significant differences were also observed in the number of "I don't remember" responses (see Table 9).

Discussion

As the author's own study has demonstrated employing misleading questions during questioning may activate the script which consequently becomes incorporated into the witnesses' memory and distorts event recall. The findings for group two are consistent

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Miedzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51

with the results of a similar study conducted by P.A. Granhag, K. Ask, E.M. Giolla who observed that: "Witnesses tend to report event's elements generated from scripted memory representations, leading to an increase in commission errors" (Granhag P.A., Ask K., Giolla E.M., 2014, p. 550).

An experiment conducted by G.H. Bower, I.B. Black and T.I. Turner further bolsters the effect of scripts on memory. The subjects of the abovementioned experiment first read two 600-word stories. The content of the stories was not related to the scripts of this experiment. The subjects then read eighteen script stories, each captioned with a title. Subsequently, subjects were asked to recall the first two stories in writing. The outcome was that the actions which appeared in the underlying scripts but were absent from the texts were intruded by the subjects into their recalls. The above-mentioned study has also demonstrated that more frequent exposure to a given script increases the number of discrepant information that is incorporated into the subjects' recall (Bower G.H., Black I.B., Turner T.I., 1979, p. 193-196).

It should be noted however that scripts can also improve recall accuracy for script-consistent events (Granhag P.A., Ask K., Giolla E.M., 2014, p. 550). The results for group one have clearly confirmed this effect as the number of the information correctly recalled in response to questions consistent with the script and script-consistent elements of the video was significantly higher than in group two queried with misleading questions. Script-consistent misinformation introduced in questions may cause recall intrusions and change a witness' memory of an event (as it did in the second group of subjects).

In light of the results of this study, interviewers should be especially aware of the extent to which the accuracy of a witness' recollection of an event depends on the formulation and information content of the question that prompted the recollection (Dilts R.B., 1999, p. 79).

In sum, this empirical study has confirmed the strong impact of scripts, misinformation as well as question formulation and the information content of questions on the level of recall accuracy.

Conclusions

In conclusion, the lesson to be learned from the study is that interviewers should implement all necessary measures to avoid misinformation during witness interviews and remember how easy it is to suggest the desired answer to the witness. Still, control

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

© 0 0 This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51

over misleading questions is restricted in some interviewing areas, considering that, in practice, police interview questions are not documented.

The findings of this study may be particularly useful to interviewers and contribute to identifying and eliminating potential sources of recall errors in witness interviews. Moreover, findings from this research may help interviewers to gather more valuable evidence. By implementing the knowledge about the impact of scripts and the formulation and content of questions on witness recall into their practice, interviewers may avoid the risk of eliciting honest but inaccurate witness statements. This study may also aid in the proper assessment of this type of statement.

References:

- ABELSON R., (1981), Psychological Status of the Script Concept, "American Psychologist", Vol. 36, No. 7.
- 2. BOWER G.H., BLACK I.B., TURNER T.I., (1979), Scripts in memory for text, "Cognitive Psychology" No. 11.
- 3. DILTS R.B., (1999), Sleight of Mouth, Meta Publications, Capitola.
- 4. GRANHAG P.A., ASK K., GIOLLA E.M., (2014), Eyewitness Recall: An Overview of Estimator Based Research [in] Perfect T.J., Lindsay D.S. (Eds.), The SAGE Handbook of Applied Memory, SAGE, Los Angeles, London, New Delhi, Singapore, Washington.
- KASSIN S., (2004), Essentials of Psychology, Pearson Education, Upper Saddle River, New Jersey.
- LOFTUS E., (1996), Eyewitness Testimony, Harvard University Press, Cambridge, Massachusetts, London, England.
- 7. WALTON D., (2008), Witness Testimony Evidence. Argumentation, Artificial Intelligence, and Law, Cambridge University Press, Cambridge.
- ZULAWSKI D.E., WICKLANDER D.E., (2002). Practical Aspects of Interview and Interrogation, Second Edition, CRC PRESS, Boca Raton, London, New York, Washington D.C.

ISSN 2543-7097 / E-ISSN 2544-9478

© 2019 / Published by: Międzynarodowy Instytut Innowacji Nauka-Edukacja-Rozwój w Warszawie, Polska

© ö ö This is an open access article

under the CC BY-NC license (http://creativecommons.org/licenses/by-nc/4.0/)

Koczur J., (2019). THE EFFECTS OF QUESTION FORMULATION AND INFORMATION CONTENT ON THE ACCURACY OF EYEWITNESS RECALL IN LIGHT OF "SCRIPT THEORY";

International Journal of Legal Studies, 2(6)2019: 41 - 51