Flashbulb memories

Describe flashbulb memories and discuss evidence on whether they are more accurate than other long-term memories. The term Flashbulb memory was first used by Brown & Kulik in 1977 (cited in McCloskey, Wible & Cohen, 1988). This flashbulb mechanism hypothesis states, that when triggered by a surprising, emotionally charged, significant event, a more vivid and lasting memory would be created than those created by everyday memory mechanisms. Examples of events that were supposed to trigger these memories in people included such events as the ‘ Challenger’ Shuttle Explosion and the assassination of John. F. Kennedy, (Nairne 2009, p. 259). People who experienced these flashbulb memories were believed to be confidently able to recall the details surrounding the event, such as where they were and who they were with etc, many years later. It was believed by McCloskey, Wible & Cohen (1988) that the emotional nature of these memories increased the person’s confidence in the accuracy of these memories. Kulik and Brown’s original hypothesis (1977, cited in McCloskey et al.), proposed that flashbulb memories should contain information about the subject’s personal circumstances, such as the location, the ongoing event, the informant and the emotional reaction of themselves and those around them. They further stated that for a memory to be deemed a flashbulb memory, these details needed to be recalled more accurately than any other content. Some authors, such as Williams and Conway (2008, pp. 21-90) describe flashbulb memory as one type of autobiographical memory. They explain it as a combination of episodic and semantic memory ie. a combination of personal experience surrounding people and events at a particular time and place, coupled with a general knowledge of worldly matters. Research on flashbulb memory has created a dichotomy, with some

researchers arguing in favour of a special flashbulb mechanism and others arguing against a separate mechanism, preferring instead to support a belief in a single mechanism used for both flashbulb and ordinary memory. Brown & Kulik (1977, cited in Pillemar, 1990) argued that flashbulb memories were fixed for a long period of time and were permanent. They varied in complexity but once created, were there to stay. The claim of permanence, however, has been translated by critics to be synonymous with accuracy. Thus, memories, according to these critics, should contain the same reported identical details many years later. Others, however, believed that the hypothesis of Brown & Kulik did not require 100% accuracy for the hypothesis of a flashbulb memory mechanism to be credible. Hornstein, Brown & Mulligan (2003) believed the reason for so much disagreement on the subject was largely due to the scarcity of shocking public events. They explained that a test-retest design was used by most researchers to test the validity of the hypothesis, where 2 sets of responses were collected; an initial response and a follow-up response at a much later date. This type of test was first used by Pillemar (1984) who examined subjects' memories for the attempt on Ronald Reagan's life. One of the earlier studies on Flashbulb memory was undertaken by McCloskey, Wible & Cohen (1988). On recognizing the different trains of thought in regard to Brown and Kulik's theory McCloskey et al. argued a case against a separate flashbulb memory mechanism on the basis of the extreme view of flashbulb memory, which claimed that flashbulb memory should be accurate, vivid and immune from forgetting (1977, cited in McCloskey, Wible & Cohen, 1988). They believed this to be the extreme view of Brown & Kulik. They concluded that if this were the case then there would be a convincing argument for the existence

of a special flashbulb mechanism but if the memories were not perfectly vivid, accurate and resistant to forgetting then the claim of a special flashbulb memory mechanism would be untenable. Unfortunately, research on this topic has to wait for a special flashbulb moment to occur before an experiment can be undertaken. However, the explosion of the Space Shuttle Challenger in 1986 provided this opportunity for McCloskey et al. In regards to the flashbulb elements of surprise, significance, vividness and consequentiality, this event met the criteria of a flashbulb event. A questionnaire was carried out directly after the event using a random selection of university students. The four questions asked were: Where were you at the time of the event? What were you doing? Did you see or hear about it later? How did you react? (McCloskey et al.). These questions were key questions, common to all experiments undertaken in the pursuit of authenticating flashbulb memories. These questions were asked 9 months later. The results of the study, led McCloskey et al. to conclude that confidence in the memory had not altered but the consistency and accuracy had altered. Even though McCloskey et al. realized that the internal validity of this experiment relied on the accuracy of the initial memory, they concluded that the results, overall, showed that flashbulb memory was no different to everyday memory. They argued that this experiment disproved the theory of the absolute accuracy of flashbulb memories and that these memories were immune to forgetting. They therefore concluded that the distinction between flashbulb memories and regular autobiographical, long-term memories was artificial. They contended that even if an event was more significant and therefore memorable and rehearsed, there existed no significant, qualitative difference between the two memory types. In

response to McCloskey, Wible & Cohen's findings (1988), Schmidt & Bohannon 111 (1988) in an article on flashbulb memory, argued that McCloskey failed in their arguments to disprove a special flashbulb memory mechanism on several points, in particular, failing to note the important differences that were evident between flashbulb memories and other memories. Schmidt et al. contended that the disproving of a strong view of flashbulb memory should not necessitate the discounting of a weaker model. They argued, that just as there was Neely & Durgunoglu's (1985) episodic versus semantic memory, so there should also be room for a variety of other memory models. Schmidt and Bohannon 111 (1988) proposed, as did Brown & Kulik (1977, cited in Schmidt and Bohannon 111, 1988), that flashbulb memory was only triggered in events of strong emotion. Whether or not the event researched by McCloskey, Wible & Cohen (1988) was an event of high affect for all the subjects in their experiment was not reported by them. Schmidt & Bohannon 111 argued that McCloskey et al.'s approach to flashbulb hypothesis only represented one kind of evaluative method available to science and that comparisons should have been made by McCloskey et al. according to the varying levels between flashbulb and more ordinary memories. Schmidt & Bohannon 111 argued that McCloskey et al's. subjects should have been required to identify the degree of affect this event evoked. If the independent variables of completeness, accuracy and vividness showed different percentage patterns based on the level of affect, then Schmidt & Bohannon 111 believed that the case for a special flashbulb mechanism should be justified. They were also critical of McCloskey, Wible & Cohen's lack of comparison. An experiment, they contended, that sets out to compare two memory types needs to include data collection and collation

from both respective memories and McCloskey et al. did not do this. Interestingly enough, the vast majority of experimentation in this area could also be accused of this same omission. As a result of the above limited experimentation by McCloskey, Wible & Cohen; Schmidt & Bohannon 111 (1988) contended that McCloskey et al's. conclusion, that no separate flashbulb mechanism existed, was unsubstantiated. They did, however, agree with McCloskey et al's. view, that the concept of flashbulb memory needed much more development. James (1950) added credence to this view. He believed that some memories were so intense as to almost leave a scar on the cerebral tissue. Schmidt & Bohannan111 affirmed that future research should be undertaken but needed be pursued on the basis of affect; comparing regular long-term memory with a weaker model of flashbulb memory and should consider the possibility of the existence of a qualitative difference between the 2 types of memory. McCloskey, Wible & Cohen (1988), arguing against flashbulb memories, also suggested that these memories could simply be categorised as distinctive memories. Schmidt (1985) however, argued that there was no compelling evidence for the effect of distinctiveness on memory. Bird (1980) also discredited the idea that it was the distinctiveness of the event, attracting more attention and producing greater rehearsal that produced these memories. He explained that research by Tulving (1969, as cited in Bird, 1980) on distinctiveness, showed that memory for surrounding activity in relation to distinctive events was often suppressed. In contrast, surrounding activity in relation to a flashbulb event was greatly enhanced. These findings strengthened the case for a unique flashbulb memory mechanism. Hornstein, Brown & Mulligan (2003) carried out a test-retest type experiment with a difference and gave

support to the view that there was a case for a unique flashbulb memory mechanism. They used multiple questionnaires on the Death of Princess Dianna using the common key questions of time, whereabouts and reaction. They questioned subjects at 3 and/or 18 month intervals and discovered that, although not achieving perfect accuracy, as predicted by Brown & Kulik (1977, cited in Hornstein, Brown & Mulligan, 2003), a large percentage were able to recall the circumstances surrounding her death at 3 and/or 18 months later. Brown & Kulik (1977, as cited in Hornstein et al.) premised their original findings on the belief that emotional arousal was linked to the formation of flashbulb memory. This was corroborated by Hornstein et al., who reported that subjects with lower emotional levels of intensity concerning Dianna's death, had lower levels of confidence in their recollections and this resulted in lower levels of accuracy. Rehearsal was also shown to be a factor that increased accuracy for flashbulb memory. However, rehearsal has also shown to be a key element in keeping everyday events alive. (Nairne 2009, p. 251). Around this same time Talarico & Rubin (2003) also undertook experimentation to determine the case for a special flashbulb mechanism but concluded that even though flashbulb memories were more intense and people more confident about them, they were no more accurate than normal memories. For instance, they discovered that students' memories for the event of September 11th changed as much as memories for everyday events. On September 12th 2001, 54 university students shared their memory of first hearing about the terrorist attack on the previous day as well as sharing about an everyday recent event. The 54 university students were randomly assigned on 3 follow-up sessions up to a year later with a mix of both male and female students. The four questions

asked were: Who or what told you about the events? Where were you? What were you doing? Who were you with? Were there any other distinctive details? The students were also asked to identify a memorable every day event such as a party, soccer game etc that had occurred in the past 2 or 3 days. They were asked to provide some information on the memorable details of the event. The degree of affect in relation to the events was also plotted on a graph of 1 — 7 along with the results of the other questions. The findings of Talarico & Rubin showed that recollection, vividness and other unique phenomena were higher for flashbulb memories than for everyday memories across the time but the accuracy for both declined over the time. They did acknowledge, however, that the two types of memories differed in some meaningful ways but suggested more research was necessary to determine this difference. In conclusion it is clear that most researchers believe that there may be a case for the existence of a unique flashbulb memory mechanism but there appears to be too many confounding variables in the experimentation undertaken to this point to reach a valid conclusion. Researchers like McCloskey, Wible & Cohen, who believe that the extreme version of Brown and Kulik’s original hypothesis could not be substantiated, agree that more research needs to be done before being able to corroborate the existence of a weaker version of a unique flashbulb memory mechanism. References Nairne, J. S. (2009). Psychology (5th ed.). Southbank, VIC.: Thomson/Wadsworth. Williams, H. L, Conway, M. A., & Cohen, G. (2008). Autobiographical memory. In G. Cohen & M. A. Conway (Eds), Memory in the Real World (3rd Edition., pp. 21-90). Hove, UK: PsychologyPressBird, C. P. (1980). The isolation effect as a function of unique processing orientation. Journal of Experimental Psychology: Human Learning and Memory, 6, 267-

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