

Research Reports

“I Knew It Would Happen ... And I Remember It!”: The Flashbulb Memory for the Death of Pope John Paul II

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Abstract

Flashbulb memory (FBM) has been defined as a vivid and detailed memory for the circumstances under which one first learned of a consequential and emotionally involving event. The present study aimed to assess a FBM for expected events, i.e., the death of Pope John Paul II, across four different religious groups (i.e., Catholic, Orthodox, No Religion, and Other Religion). Furthermore, the study addressed to test the extent to which the FBM features and the emotional and social FBM determinants vary as a function of the importance given to the event within each religious group. Results showed that all participants, regardless of their religious affiliation, exhibited a consistent memory of the details related to the reception context of the expected news. Additionally, the results emphasized the effect of the religious affiliation on the FBM features, and on the variables traditionally associated with FBM. Compared to the other religious groups, Catholic participants exhibited the highest FBM Consistency for the Pope's death, and they were the most emotionally and socially involved in the event. Implications for the FBM debate are discussed.

Keywords: flashbulb memories, emotional events, importance/consequentiality, religious affiliation

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Following an emotional public event, people can remember not only the event itself but also all the surrounding details at the time they discovered the news. Thirty years have passed since [Brown and Kulik \(1977\)](#) first formally described this phenomenon, by giving it the label of flashbulb memory (FBM). FBMs have been defined as vivid, and detailed memories for the context in which one first learned of a surprising, consequential and emotionally involving event.

Since then, for many years, researchers have been debating whether FBMs should be considered as a special class of autobiographical memories ([Brown & Kulik, 1977](#); [Conway, 1995](#); [Pillemer, 1984](#)) or they suffer the same fate of ordinary autobiographical formations ([Christianson, 1989](#); [Larsen, 1992](#); [McCloskey, Wible, & Cohen, 1988](#); [Neisser & Harsch, 1992](#)). The controversial debate concerning the existence of this special class of memories ([Curci & Conway, 2013](#)) reflects a challenge when studying both the FBM formation and maintenance ([Brown & Kulik, 1977](#); [Conway, 1995](#); [Finkenauer et al., 1998](#); [Lanciano, Curci, Mastandrea, & Sartori, 2013](#); [Lanciano, Curci, & Semin, 2010](#); [Pillemer, 1984](#)), and the FBM measurement ([Curci, 2005, 2009](#); [Curci & Lanciano, 2009](#); [Lanciano & Curci, 2012](#); [Wright, 2009](#)).

Brown and Kulik (1977) were the first to conceive a theoretical model of FBM formation and maintenance. They suggested that, in order to initialize FBM formation, the original event must be new and unexpected so as to elicit surprise. A subsequent step refers to the assessment of the personal consequentiality. Processes leading to the evaluation of surprise and consequentiality values are automatic and not under direct conscious control. High values of both surprise and consequentiality are required if FBMs are to be formed. Once the process of FBM formation is initiated, the actual degree of elaboration of a memory is determined by the level of consequentiality. Brown and Kulik (1977) postulated that FBMs themselves could vary in clarity and detail, and that this variation is positively correlated with personal consequentiality, so that the greater the personal significance of an event for the well-being of the individual and of the group to which it belongs, the clearer and more detailed the memory. The intersection between surprise and consequentiality serves to initiate FBM formation, whereas the degree of consequentiality alone determines the elaborateness of the resulting FBM.

Since the original work by Brown and Kulik (1977), many studies on FBM confirmed the role of surprise and importance/consequentiality as two FBM main determinants (Bohannon, 1988; Christianson, 1989; Curci & Luminet, 2006; Kvavilashvili, Mirani, Schlagman, & Kornbrot, 2003; McCloskey, Wible, & Cohen, 1988; Neisser & Harsch, 1992; Smith, Bibi, & Sheard, 2003; Talarico & Rubin, 2003; Tekcan, Ece, & Gülgöz, 2003). The appraisal of importance/consequentiality may be operationalized in different ways, some being more strictly related to personal emotional involvement, and others to the social group membership. Regarding personal emotional involvement, in some studies this variable seems to be determined by the direct experience of the event (Er, 2003; Neisser et al., 1996), in others by the psychological distance (Tekcan et al., 2003), or the emotional arousal (Smith et al., 2003). Studies on FBMs for earthquakes (Er, 2003; Neisser et al., 1996), for example, demonstrated that participants who were in the areas affected by the disaster remembered their experiences more accurately than participants who merely heard about the disaster in the news. Regarding social group membership, some authors compared groups of participants belonging to the nation where the target event happened, with others living outside (Curci & Luminet, 2006; Tinti, Schmidt, Sotgiu, Testa, & Curci, 2009), where it is reasonable to assume that the event had a minor, or at least different, psychological and social impact.

On the whole, although importance/consequentiality has been operationalized in very different ways and although different kinds of personal characteristics have been hypothesized as influencing this factor, studies on FBM formation have confirmed its fundamental role. The same cannot be said of surprise. Some studies have assessed FBMs for predictable events (Bellelli, 1999; Curci, 2005; Curci & Luminet, 2009; Curci, Luminet, Finkenauer, & Gisle, 2001; Davidson & Glisky, 2002; Edery-Halpern & Nachson, 2004; Neisser, 1982; Ruiz-Vargas, 1993; Tinti et al., 2009; Weaver, 1993; Winograd & Killinger 1983), by challenging the necessity of an event being appraised as novelty and/or unexpected to elicit a FBM. Findings from these studies suggested that some events, although expected and predictable, can give rise to vivid and long-lasting FBMs for highly involved people. Novelty could be considered at the same time in terms of both unexpectedness and exceptionality. In other words, an event might be considered a novelty not only because it came suddenly and unexpectedly, but also in terms of its disruptiveness with respect to one's ordinary routine. It follows that the appraisal of an event's exceptionality, with respect to the everyday life schema and routine, would be considered a relevant predictor for autobiographical memory formation and its structuring (Brown et al., 2009; Curci & Luminet, 2006).

General Aims

The event considered for the present study was the expected death of Pope John Paul II. This event was demonstrated to best trigger a FBM (Lanciano & Curci, 2012; Lanciano et al., 2013; Tinti et al., 2009). The Pope

had been seriously ill for several weeks before dying in Rome on Saturday, 2 April, 2005, at 9.37 p.m. The cause of his death was listed as septic shock and cardio-circulatory collapse. The news of the Pope's death provoked an immediate and powerful resonance in the mass media and captured the attention of people worldwide. The media amplification of this event gave us a unique opportunity to assess its psychological impact soon after it occurred and the possible persistence of effects some months later.

The current study aimed to test the formation of a consistent FBM for the expected event of the Pope's death. Furthermore, it aimed to show that FBM features, and emotional and social variables traditionally associated with FBM, vary for different groups depending on the importance given to the event within each group. In the present study, group membership was operationalized through individuals' religious affiliation (i.e., Catholic, Orthodox, No Religion, and Other Religion). Additionally, the present work focused on exploring the relationships between FBM features and the emotional and social determinants of FBM.

Method

Design

The cross-national study adopted a between subjects design with the Religious Affiliation (Catholic vs. Orthodox vs. Other Religion vs. No Religion) as a factor. Dependent variables were: FBM Consistency, Exceptionality, Surprise, Novelty, Importance, Exposure to the News, Attitude, Negative Emotions, and Prior Knowledge.

Participants

The sample was composed of 285 participants selected by Religious Affiliation (33.3% Catholic, 7.7%, Orthodox, 41.4% No Religion, 17.5% Other Religion). Participants' age ranged from 14 to 81 years ($M = 25.81$; $SD = 12.80$; 78.9% female). Participants were university students, university faculty staff, and experimenters' acquaintances, invited to take part in a study on the emotional and social consequences of the Pope's death.

Measures and Procedure

FBM Consistency. At the test phase, participants were asked to fill in a questionnaire concerning the death of Pope John Paul II (Lanciano & Curci, 2012; Lanciano et al., 2013; Tinti et al., 2009). Participants who had agreed to participate in subsequent phases of data collection were contacted again for the retest phase. The first data collection took place 9 days after the event on average ($SD = 3.18$). The second data collection took place 289 days after the first phase on average ($SD = 4.55$).

The questionnaire used in both the test and retest phases is similar to the questionnaire adopted by Luminet and colleagues (2004), and Curci and Luminet (2006). The consistency scoring procedure adopted standard criteria largely validated in the FBM research (see Conway et al., 1994; Curci & Luminet, 2006; Smith et al., 2003; Van Giezen, Arensman, Spinhoven, & Wolters, 2005). Items corresponded to five FBM attributes (Bohannon, 1988; Brown & Kulik, 1977; Finkenauer et al., 1998): a) date (date, day of the week, and time of the day) b) informant (family, friends, colleagues, media), c) location (country, city, room or other kind of location i.e., the car), d) other people present, and e) ongoing activity. In order to check the FBM Consistency over time, for each item of the section we compared responses to the first data collection with those provided in the retest phase. Score 2 was assigned to respondents who showed a completely consistent recall, that is, if they provided exactly the same answer at both test and retest (i.e., for other people question: "sister and father" at both test and retest). Score 1 was assigned when the answers were basically but not entirely identical, that is, when a gain/loss of information

occurred (i.e., “sister and father” at test, only “sister” at retest; or “sister and father” at test, no answer at retest). Score 0 was assigned either when the answers were missing in both phases of data collection, or when the answers were totally different (i.e., “sister and father” at test, “boyfriend” at retest; or “sister and father” at the test and missing at the retest). The scores for each FBM category were summed up to get the FBM Consistency index ranged from 0 to 10 (Cronbach’s alpha = .68).

Exceptionality. Participants rated the exceptionality of the event on a 11-point scale (0 = “not at all”; 10 = “very much”).

Surprise. Participants rated the intensity of surprise felt after the event on a 11-point scale (0 = “not at all”; 10 = “very much”).

Novelty. Respondents rated on two 11-point scales (0 = “not at all”; 10 = “very much”) a) the novelty and b) the expectedness of the event. The scores of item b) were reversed. Item scores for this section were averaged to get the Novelty index.

Importance. Participants rated on five 11-point scales (0 = “not at all”; 10 = “very much”) a) personal importance, b) consequences on their own lives, c) consequences on the Catholic Church, d) national consequences, and e) international consequences. Item scores for this section were averaged to get the Importance index (Cronbach’s alpha = .81).

Exposure to the News. Participants rated on four 11-point scales (0 = “not at all”; 10 = “very much”) the frequency with which they followed the news through a) press, b) radio, c) television, d) internet. Item scores for this section were averaged to get the Exposure to the News index (Cronbach’s alpha = .64).

Attitude. Participants rated on three 11-point scales (0 = “not at all”; 10 = “very much”) a) how much they liked the Pope as a person, b) their favourable attitude to the Pope’s work concerning relations between nations, and c) their favourable attitude to the Pope’s work for the Catholic Church. Item scores for this section were averaged to get the Attitude index (Cronbach’s alpha = .88).

Negative Emotions. Participants rated on four 11-point scales (0 = “not at all”; 10 = “very much”) the intensity with which they felt a) anger b) sadness c) fear, and d) anxiety. Items scores for this section were averaged to get the Negative Emotions index (Cronbach’s alpha = .73).

Prior Knowledge. Participants answered nine questions about the Pope’s life: a) when he was born, b) where he was born, c) when he became Pope, d) years as pontiff, e) surgical operations, f) year of assassination attempt, g) last illness, h) secret of Fatima, and i) how many saints he proclaimed. For each item, value 2 was assigned when the answer was totally correct (i.e., where he was born: “Wadowice”), value 1 when the answer was partially correct (i.e., “Krakow or Poland”), and value 0 when the answer was totally incorrect or when it was not provided. Item scores for this section were averaged to get the Prior Knowledge index (Cronbach’s alpha = .89).

Results

Descriptive Analyses

Descriptive analyses showed that generally all participants, regardless of their religious affiliation, produced a consistent memory of the reception context related to the Pope’s death news ($M = 5.04$; $SD = 2.77$). With regards

to the five FBM canonical categories (date, informant, location, others, activity), the results showed that the most consistent details were about informant and location (see [Figure 1](#))

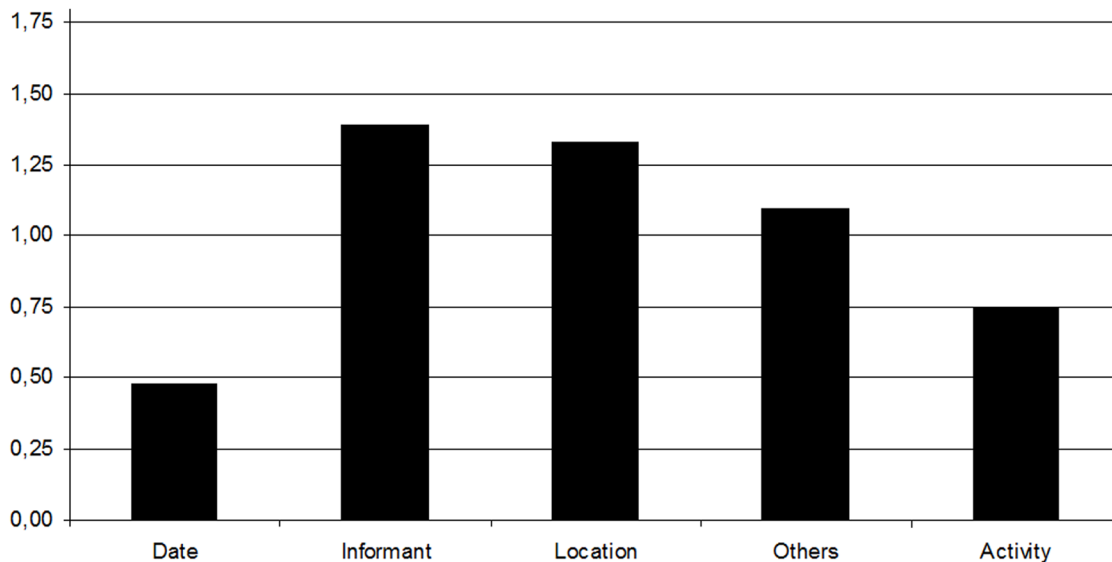


Figure 1. FBM Canonical categories consistency.

Religious Affiliation Effect

A MANOVA was run in order to assess the effect of Religious Affiliation (Catholic vs. Orthodox vs. No-religion vs. Other Religion) on the FBM Consistency, and all emotional and social variables traditionally associated with FBM (Exceptionality, Surprise, Novelty, Importance, Exposure to the news, Attitude, Negative emotions, and Prior knowledge). The results showed that the main effect of Religious Affiliation was found to be significant for all measures except for Exceptionality (see [Table 1](#)): All participants, regardless of their religious faith, evaluated the news as moderately exceptional.

Compared to other groups, Catholic participants exhibited a more consistent and stable FBM, they gave more importance to the event, they rehearsed the news more frequently, had a more favorable attitude towards the Pope, they felt higher levels of negative emotions and they had a better knowledge of the Pope's life. Additionally, both other religions or no religion groups evaluated the event as more surprising and unexpected, compared to catholic and orthodox groups.

Correlation and Regression Analyses

The correlations between FBM Consistency and the emotional and social FBM determinants are shown in [Table 2](#). Generally, FBM Consistency had significant positive correlations with Exceptionality, Novelty, Importance, Attitude, Negative emotions, and Prior Knowledge, and negative correlation with the evaluation of Surprise.

A stepwise multiple regression analysis was run as a stronger test of associations in order to test the role of emotional and social determinants on FBM Consistency. The results showed that the consistency of the memory of the reception context appeared to be positively predicted by the positive attitude towards the Pope and the Prior knowledge about the Pope's life and his actions.

Table 1

Religious Affiliation Effect on all Measures

Measures	Religious affiliation				F(3,263) η^2
	M Catholic (SD) n = 92	M Orthodox (SD) n = 20	M No-religion (SD) n = 110	M Other Religion (SD) n = 45	
FBM Consistency (range 0-10)	6.87 _a (2.39)	4.67 _a (2.82)	4.08 _a (2.44)	3.88 _a (2.46)	26.17* .23
Exceptionality (range 0-10)	2.03 (.54)	1.92 (.64)	1.95 (.59)	2.06 (.59)	.66 .01
Surprise (range 0-10)	2.03 _a (2.45)	2.80 _b (2.48)	5.20 _{a, b} (2.76)	4.84 _{a, b} (2.98)	26.51* .23
Novelty (range 0-10)	1.67 _a (1.19)	2.28 _b (1.84)	3.38 _{a, b} (2.14)	3.31 _{a, b} (2.35)	16.17* .15
Importance (range 0-10)	7.09 _a (1.91)	5.30 _a (1.95)	5.35 _a (1.57)	5.35 _a (1.87)	19.50* .18
Exposure to the news (range 0-10)	4.86 _a (2.17)	2.48 _a (1.34)	2.57 _a (1.77)	2.63 _a (1.86)	28.91* .25
Attitude (range 0-10)	9.24 _a (1.31)	7.87 _{a, b} (1.79)	6.32 _{a, b} (2.06)	6.23 _{a, b} (2.49)	46.70* .35
Negative emotions (range 0-10)	3.73 _a (1.94)	2.93 _b (1.90)	1.40 _{a, b} (1.57)	1.61 _{a, b} (1.73)	33.18* .27
Prior knowledge (range 0-2)	1.00 _a (.38)	.44 _{a, b} (.35)	.07 _{a, b} (.17)	.08 _{a, b} (.15)	219.18* .71

Note. Means in a row sharing subscripts are significantly different at least at .001 alpha level.

*p < .001.

Table 2

Associations Analyses Between FBM Consistency and Emotional and Social FBM Determinants

	FBM Consistency	
	Pearson's r	β^a
Exceptionality	.15*	.05
Surprise	-.20**	-.01
Novelty	.25**	.01
Importance	.29**	.02
Exposure to the news	.25**	-.02
Attitude	.40**	.20**
Negative emotion	.23**	-.04
Prior knowledge	.45**	.33**

^aR² = .23**, F(2,266) = 40.21, p < .001.

*p < .01. **p < .001.

Discussion

The first aim of the present work was to demonstrate that people have FBMs for an expected event, i.e., the Pope's death (Bellelli, 1999; Curci, 2005; Curci & Luminet, 2009; Curci et al. 2001; Davidson & Glisky, 2002; Edery-Halpern & Nachson, 2004; Neisser, 1982; Ruiz-Vargas, 1993; Tinti et al., 2009; Weaver, 1993; Winograd & Killinger, 1983). Results showed that all participants, regardless of their religious affiliation, provided a consistent memory of the reception context in which they first heard of the news. More specifically, the best remembered canonical category was the informant of the news, in line with other studies showing the remembered detail of mass media as crucial in defining FBMs (Curci, 2005).

Actually, the present study aimed to also show that FBM Consistency and social and emotional FBM determinants (exceptionality, surprise, novelty, importance, exposure to the news, attitude, negative emotions, and prior knowledge) varied across different religious groups depending on the importance given to the event within each group (Curci & Luminet, 2006; Curci et al., 2001; Luminet et al., 2004). As suggested by Brown and Kulik (1977) in their original FBM model, in the present study, the construct of importance was operationalized through two indices: the level of self-report importance attributed by individuals to the event, and their social group membership (Curci & Luminet, 2006; Luminet et al., 2004). In line with hypotheses, the Catholic participants exhibited the highest FBM Consistency for the Pope's death, and they were the most emotionally and socially involved in the event: They gave more importance to the event, rehearsed the news more frequently, felt higher levels of negative emotions, and had a better knowledge of the Pope's life.

The analysis of the relationship between the FBM Consistency and the other variables, confirmed the role of the emotional and social determinants traditionally associated with FBM. The Higher the levels of Exceptionality, Novelty, Importance, Attitude, Negative emotions, and Prior Knowledge, the greater the levels of FBM stability over time. The regression findings underlined the key role of attitude and prior knowledge in predicting FBM Consistency, in line with the FBM comprehensive model proposed by Conway and colleagues (1994). The authors suggested that prior knowledge about Thatcher's government is of central importance for FBM formation for the resignation of the British prime minister, Margaret Thatcher. Prior knowledge would facilitate the organization and assimilation of the incoming information, thereby leading to a more detailed and stable FBM (Conway et al., 1994).

The current work presents several merits. First, it provided a step forward in defining a FBM, by overcoming the classical definition of Brown and Kulik (1977). Compared with the traditional studies on the topic, the present findings showed how it is possible to produce a FBM after an expected event, showing that the appraisal of novelty should be re-considered also in terms of both unexpectedness and exceptionality.

Second, the construct of importance/consequentiality has been operationalized through the religious affiliation of participants, whereas many studies have usually considered different groups of individuals based generally upon their national provenance (Curci & Luminet, 2006; Tinti et al., 2009). From this perspective, our study highlighted the role of social groups in FBM formation, and specifically how they differently affect the rehearsal mechanisms (Berntsen, 2009). In the present study, the concept of *social group* (and the subsequent indirect evaluation of importance within each group) has been conceived in terms of religious affiliation.

Third, the present study used four comparison groups, while, with the exception of a few studies (Curci & Luminet, 2006; Tinti et al., 2009), other researches on social group differences in FBM formation were usually restricted to

one or two comparison groups, thus limiting the inter-individual variability of the importance given to the event (Bohannon, 1988; Christianson, 1989; Conway et al., 1994; Curci et al., 2001; Pillemer, 1984).

However, the present research has some limitations. First, the present study could not directly test differences, on the basis of surprise or expectancy, by dividing samples of participants with higher than average surprise scores, and those with lower than average surprise scores. Second, we recorded the canonical category *informant* without discriminating between source as person vs. source as media (Bohannon, Gratz, & Cross, 2007). It is possible that this more detailed information would better explain how FBM Consistency varies among religious participants: Italians culture and religion, due to their proximity to the Vatican, were more likely to tell others about their discovery of the Pope's death, whereas the other religious groups were more likely to get their discoveries from the media. Third, in the preset study we only considered the religious affiliation sample, by omitting their nationality, hence it is difficult to conclude that differences between groups are based solely on religious affiliation and not also on cultural differences.

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