



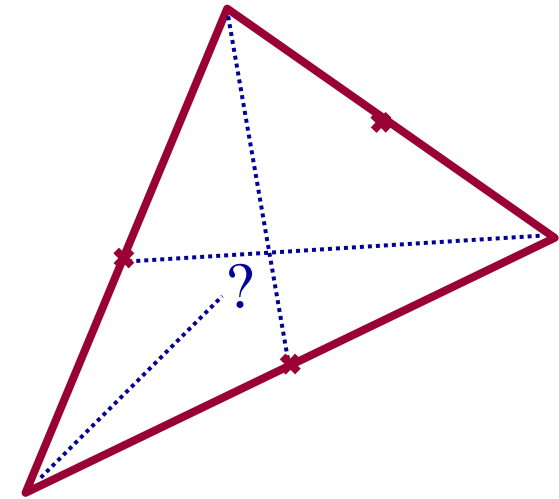
Coincidences and the Encounter Problem

A Formal Account

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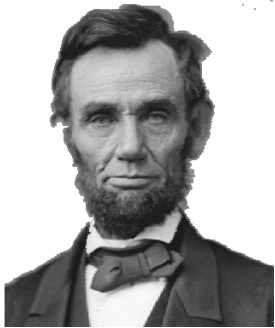
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Lincoln & Kennedy

Kern, K. & Brown, K. (2001). Using the list of creepy coincidences as an educational opportunity. *The history teacher*, 34 (4), 531-536.

"creepy coincidences" between Abraham Lincoln and John F. Kennedy



"Lincoln was elected to Congress in 1846, Kennedy was elected to Congress in 1946."

"Lincoln was elected president in 1860, Kennedy was elected president in 1960."

"Both presidents have been shot in the head in presence of their wives."

"Both successors were named Johnson, born in 1808 and 1908."

"Kennedy was shot in a car named Lincoln"

...



$$U(e_1 * e_2) = C_w(e_1 * e_2) - C(e_1 * e_2)$$



$$U(e_1 * e_2) \geq C_w(e_1) + C_w(e_2) - C(e_1) - C(e_2|e_1)$$

$$U(e_1 * e_2) = C(e_1) - C(e_2|e_1)$$

☀ To be explained:

- ◉ Role of close analogy
- ◉ Role of mere association
- ◉ Role of round numbers
- ◉ Role of prominence

Lincoln & Kennedy

<http://en.wikipedia.org/wiki/Coincidence>

- Lincoln's name has 7 letters - Kennedy's name has 7 letters
- Lincoln was elected to Congress in **1846** - Kennedy was elected to Congress in **1946**
- Lincoln was elected president in **1860** - Kennedy was elected president in **1960**
- Kennedy had a secretary named Lincoln
- War was thrust upon Lincoln almost immediately after inauguration - War was thrust upon Kennedy almost immediately after inauguration
- Lincoln ordered the Treasury to print its own money - Kennedy ordered the Treasury to print its own money
- International bankers may have arranged the assassinations of Lincoln and Kennedy
- Lincoln gave negroes freedom and legalized equality - Kennedy enforced equality for negroes
- Lincoln delivered the Gettysburg Address on November 19, 1863 - Kennedy was assassinated on November 22, 1963
- Lincoln was loved by the common people and hated by the establishment - Kennedy was loved by the common people and hated by the establishment
- Lincoln was succeeded, after assassination, by **vice-president Johnson** - Kennedy was succeeded, after assassination, by **vice-president Johnson**
- Andrew Johnson was born in **1808** - Lyndon Johnson was born in **1908**
- Andrew Johnson's name has 13 letters - Lyndon Johnson's name has 13 letters
- Lincoln was sitting **beside his wife when he was shot** - Kennedy was sitting **beside his wife when he was shot**
- Lincoln was shot on a **Friday** - Kennedy was shot on a **Friday**
- Lincoln was shot in a theatre named **Ford** - Kennedy was shot in a car made by **Ford**
- Kennedy was shot in a **car named Lincoln**
- Lincoln's bodyguard was away from his post at the door of the President's box at the theatre - Kennedy's bodyguards were away from their posts on the running-boards of the President's car
- Lincoln was shot in a theatre and his assassin ran to a warehouse - JFK was shot from a warehouse and his alleged assassin ran to a theatre
- Lincoln's assassin had a three-worded name, John Wilkes Booth - Kennedy's alleged assassin had a three-worded name, Lee Harvey Oswald
- John Wilkes Booth has 15 letters - Lee Harvey Oswald has 15 letters
- John Wilkes Boothe was born in 1839 - Lee Harvey Oswald was born in 1939 (*false: Boothe was born in 1838*)
- Lincoln and Kennedy died in places beginning with the initials P and H - Lincoln died in Petersen's house - Kennedy died in Parkland Hospital
- Booth was shot and killed* in police custody before going to trial - Oswald was shot and killed in police custody before going to trial
- Kennedy's funeral was modelled on Lincoln's funeral
- Andrew Johnson was a heavy drinker with crude behaviour - Lyndon Johnson was a heavy drinker with crude behaviour
- There were conspiracy theories that Johnson was knowledgeable about Lincoln's assassination - There were conspiracy theories that Johnson was knowledgeable about Kennedy's assassination**
- Days before it happened Lincoln told his wife and friends about a dream he'd had of being shot by an assassin - Hours before it happened Kennedy told his wife and friends it would be easy for an assassin to shoot him from a crowd
- Shortly after Lincoln was shot the telegraph system went down - Shortly after Kennedy was shot the telephone system went down
- Kennedy's **father** had been the Ambassador to England at the Court of St James - Lincoln's **son** became the Ambassador to England at the Court of St James
- Lincoln and Kennedy were 2 of the greatest presidents of the nation
- Lincoln's wife tastefully and expensively re-decorated the White House - Kennedy's wife tastefully and expensively re-decorated the White House
- Lincoln loved great literature and could recite poetry by heart - Kennedy loved great literature and could recite poetry by heart
- Lincoln had young children while living at the White House - Kennedy had young children while living at the White House
- Lincoln's sons had ponies they rode on the White House grounds - Kennedy's daughter had a pony she rode on the White House grounds
- Lincoln **lost a child** (12 year old son) to death while President - Kennedy **lost a child** (newly born son) to death while President
- Lincoln let his children run and play in his office - Kennedy let his children run and play in his office
- After Lincoln's assassination the nation experienced an emotional convulsion - After Kennedy's assassination the nation experienced an emotional convulsion
- the whole world cried when Lincoln died - the whole world cried when Kennedy died
- Lincoln's funeral train travelled from Washington-DC to New York - Kennedy's brother's funeral train travelled from New York to Washington-DC
- Lincoln Assassination conspiracy theories are believed these 140 141 years later - Kennedy Assassination conspiracy theories are believed these 42 43 years later
- Abraham was the first name of the man who filmed Kennedy's murder in the Lincoln
- The man running alongside Kennedy's car snapping pictures with his 35mm camera was a salesman of Lincoln cars
- Kennedy bought a Virginia home that was the 1861 Civil War headquarters of Lincoln's first general-in-chief, McClellan
- Jefferson Davis was the name of the president of the Confederate states while Lincoln was president of the Union states - Jefferson Davis Tippit was the name of the police officer killed allegedly by Kennedy's alleged assassin
- Lincoln was famous for his wit and for telling hilarious stories and anecdotes - Kennedy was famous for his wit and for telling hilarious stories and anecdotes

Israel lottery draws same numbers twice in a month

The Associated Press

Sunday, October 17, 2010; 12:34 PM

Hot Topics

JERUSALEM -- Now that's a lucky number.

For the second time in a month, [Israel's](#) biweekly national lottery produced the same winning combination: 13, 14, 26, 32, 33 and 36.

The results of Saturday night's draw were identical to those of Sept. 21.

Chairman of Israel's National Lottery Authority, Saul Sutnik, called the outcome a "rare probability" and said the results were checked several times to verify them.

Double suicide by drowning



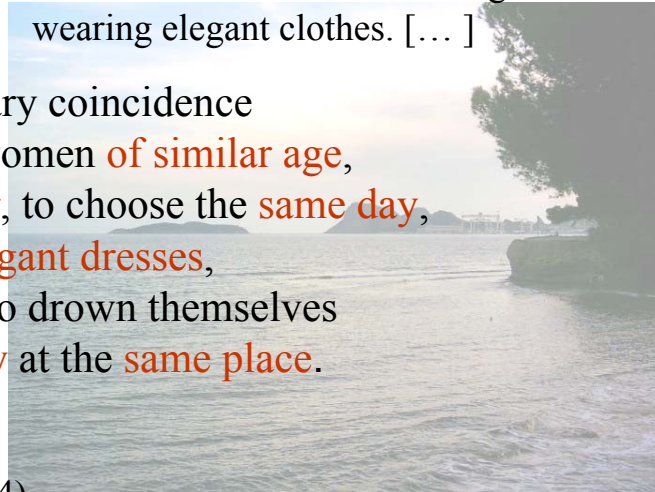
Surprise, suspense and perplexity for the coastguards of Nice and the police officers of the Antibes police station, who were confronted with a quite unusual enigma: they discovered in the Baie des Anges, in the afternoon, the floating bodies of two women in late middle age wearing elegant clothes. [...]

In fact, an extraordinary coincidence would have led two women **of similar age**, **ignorant of each other**, to choose the **same day**, keeping their very **elegant dresses**, to go in the morning to drown themselves **almost simultaneously** at the **same place**.

(Le Figaro, 20 March 2004)

☀ To be explained:

- ◉ Role of allocentric proximity
 - in time
 - in space
- ◉ Role of egocentric proximity
 - in time
 - in space
- ◉ Role of similarity
 - age
 - clothing
- ◉ Role of causality
 - ‘ignorant of each other’



Fortuitous encounters

- ☀ To be explained:
 - The coincidence is more impressive if...
 - one meets a close friend
 - one meets a celebrity
 - The coincidence is more impressive if...
 - the place is remote (hard to find)

$$C_w(L(ego) \& L(P)) = C_w(L(ego)) + C_w(L(P))$$

$$C_w(L(ego) \& L(P)) = 2 C(L)$$

$$C(L(ego) \& L(P)) = C(L) + C(P)$$

$$U(L(ego) \& L(P)) = C(L) - C(P)$$



Example 4: coincidence of birthdays

- ☀ To be explained:



- Self-coincidences are more surprising than comparable coincidences that happen to others.



Falk, R. (1989). Judgment of coincidences: Mine versus yours. *The American Journal of Psychology*, 102 (4), 477-493.



Unexpectedness

Complexity $C(s)$ of s :
size of the smallest available description of s



Complexity required for
generating the situation

Complexity of the
minimal computation



$$U(s) = C_w(s) - C(s)$$

$$p = 2^{-U}$$

probability

Predicting the cognitive effect of coincidences

$$U(e_1 * e_2) \geq C_w(e_1) + C_w(e_2) - C(e_1) - C(e_2|e_1)$$

$$U(e_1 * e_2) = C(e_1) - C(e_2|e_1)$$

☀ Egocentric effects:

$$U(Q * e_1 * e_2) = -C(Q) + U(e_1|Q) + U(e_2|e_1)$$

$$U(ego * e_1 * e_2) = U(e_1|ego) + U(e_2|e_1)$$

$$U(s_1 * s_2) = -\log(D_v^2 v_e v_a) + \dots$$

☀ Fortuitous encounters

$$C_w(ego * P * l(ego) * l(P)) = 2 C_w(l(ego))$$

$$C(ego * P * l(ego) * l(P)) = C(P) + C(l)$$

$$U(l(ego) * P * l(P)) \geq C(l) - C(P)$$

Dessalles J-L. (2008)
La pertinence et ses origines
Hermes-Science

