

# THE TELL-TALE TYPEWRITER

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In the Oakland Tribune of April 2, 1971, there appeared "Most Common Typo" in the Ann Landers column, a tale of suspected typewriter crime. It seems that a frantic father had written to Ann about a letter that his wife, in her sixth year of analysis, had received from her 18-year-old daughter, who was away at college.

The salutation of this ominous letter was "Dead Mother and Dad."

The father sought Ann's help in assuring his wife that this, being merely a typing error, had no psychological significance -- that is, the daughter didn't wish her dead. Ann complied with the comforting words "Anyone who uses a typewriter will tell you that one of the most common typographical errors (because of relative position of the keys) is the transposition of 'd' for 'r'."

Since my wife had called Ann's column to my attention while I happened to be reading the Pocket Books edition of Freud's A General Introduction to Psychoanalysis (honest!), and being "any-one", and possessing a naturally contrary turn of mind as well as a large store of obscure trivia, and armed with some experience as a typing teacher, I informed Ann that she shouldn't be so flip about the slip. She responded in a nice way.

My argument was based on the Letter-Error Chart on page 505 of August Dvorak's (and others) book, Typewriting Behavior (New York: American Book Company, 1936). This table is the only one I know of which offers such an exhaustive analysis of typing errors (60,000 errors). I had recently received a copy of the book from Dvorak himself, inventor of the famed Dvorak Simplified Keyboard (DSK), in which I was greatly interested at the time. The man had a better typewriter keyboard and no takers, save a few followers at the fringe, a tragic story, yet now -- after his death, it's possible to configure your computer to the DSK.

Furthermore, I knew from my own teaching experience that typing a "d" for an "r" is not a common error. Intuitively one would expect an "f" to be struck for an "r" because "r" is struck with the "f" finger. The Letter-Error Chart shows that "f" was struck for "r" 419 times, whereas "d" was struck for "r" just 72 times. However "t" was struck for "r" 1407 times, and "e" for "r" 813 times. Thus, the evidence seems to favor a showing slip.

Of course, this kind of problem can be "solved" only statistically. There is no way to indict this particular daughter. What was her frame of mind at the time? (Perhaps she herself, or someone

who knows, will read this and tell us.) Could she type? It seems unlikely that a two-finger typist would cross over to type either an "r" or a "d", lending support to the notion that she could type -- typing a "d" for an "r" is a mistake that only someone knowing how to type would make. Had she made the same mistake on other letters? Had she ever previously expressed a death wish to her mother?

These and other questions come to mind. For example, complicating the issue is that both "dear" and "dead" are one-hand words, and that "de" is a slow digraph (difficult to type) -- see Dvorak, page 357.

The crux of the matter is that if the mother had been found murdered, and you, the detective inspector, had found the letter, would you have brought the daughter in for questioning?

There are many approaches to this problem. For my money, "d" was struck for another left-hand key (q,w,e,r,t,a,s,f,g,z,x,c,v,b) 2950 times. Therefore, in the case of a mistake, it is 2878 to 72 (40 to 1) against the "r". On the other hand, all other left-hand letters were struck for "r" 3297 times. Therefore, it is 3225 to 72 (about 45 to 1) against the "d". Considering that the bottom row of keys can probably be ignored, these numbers can be refined, but not by much.

Taking an even simpler approach, "d" was struck for "r" 72 times, while "r" was struck for "d" 139 times, almost twice as often. It's easier to strike the "r" if that's your intention. Haul that daughter in! Her Freudian slip is definitely showing!

LETTER-ERROR CHART FOR THE "UNIVERSAL" KEYBOARD\*

Read across the page, thus: A was struck for B 69 times; for C, 106 times; for E, 560 times, etc.

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A was struck for		69	106	71	560	102	24	139	148	26	15	136	58	61	126	60	89	104	1012	116	46	96	100	33	46	139
B was struck for	36		37	43	33	44	163	42	12	8	3	25	57	262	43	13	1	7	28	40	21	773	7	6	15	9
C was struck for	59	43		486	98	67	22	19	36	7	27	14	20	84	25	1	7	30	174	28	14	466	22	133	8	9
D was struck for	65	43	436		755	394	117	23	73	27	484	58	7	80	27	6	2	72	862	119	22	21	30	22	11	1
E was struck for	494	28	149	651		72	76	114	1019	20	25	141	66	75	174	27	5	813	276	273	95	44	638	17	77	7
F was struck for	43	80	92	524	72		586	56	66	176	24	38	6	27	56	47	3	419	71	153	12	159	12	1	8	1
G was struck for	35	241	34	166	75	541		461	24	54	41	17	9	59	8	5	8	37	30	267	18	51	9	3	8	3
H was struck for	40	44	43	22	42	47	389		100	207	111	21	19	275	46	15	6	26	36	117	44	11	9	4	99	1
I was struck for	159	10	17	73	907	28	25	84		30	211	81	50	90	915	21	13	59	78	160	360	54	20	2	27	1
J was struck for	11	6	10	11	21	140	62	489	46		217	49	242	188	28	7	1	6	4	40	128	5	1	2	10	2
K was struck for	17	10	34	287	79	11	16	66	172	101		521	37	44	56	10	2	17	23	16	7	2	2	4	3	—
L was struck for	119	44	16	59	116	54	24	42	106	54	413		62	97	567	92	7	40	150	77	29	3	8	7	14	3
M was struck for	52	16	11	8	41	6	15	13	27	60	56	21		1577	77	24	5	17	25	14	36	39	6	3	2	2
N was struck for	93	135	33	44	87	19	68	151	90	28	17	50	1249		68	10	6	27	74	67	25	63	8	6	22	3
O was struck for	210	18	23	30	134	82	20	68	1290	26	52	671	54	63		346	36	154	78	112	154	22	104	8	22	3
P was struck for	33	11	9	6	56	11	10	14	28	3	6	46	15	24	405		36	23	14	43	19	6	13	3	15	1
Q was struck for	232	6	5	3	21	11	12	7	9	3	—	4	10	3	10	22		6	16	66	20	17	109	3	6	6
R was struck for	111	15	40	139	1043	334	36	24	92	5	7	27	14	70	140	33	8		186	1488	398	58	67	19	28	7
S was struck for	954	23	260	1061	300	106	23	16	69	6	24	162	27	91	68	12	8	156		150	57	59	410	157	15	19
T was struck for	97	38	24	105	212	185	254	129	157	26	20	65	15	58	79	23	55	1407	168		58	7	55	45	327	5
U was struck for	33	59	10	28	64	17	15	49	519	124	23	40	13	35	123	21	40	217	81	99		22	25	52	419	12
V was struck for	45	1001	430	39	71	137	38	28	35	1	2	10	34	101	17	2	18	44	24	11	40		11	11	20	1
W was struck for	89	9	10	76	927	26	6	19	15	3	1	17	16	22	122	30	96	136	382	95	18	26	10	10	12	26
X was struck for	33	12	292	35	24	1	3	11	8	5	1	2	9	8	11	5	5	21	225	23	23	10	12	16	16	191
Y was struck for	44	10	5	18	57	11	26	109	33	13	3	12	18	31	12	11	5	32	138	508	502	90	43	13	8	
Z was struck for	288	7	6	7	6	2	3	2	10	1	3	3	1	5	4	4	6	13	34	6	2	9	30	108	6	

\*Lessenberry, D. D., *Error Chart* (L. C. Smith and Corona Typewriters, Inc., Syracuse, New York).