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## Supplementary online material

Title: Lexical access and lexical diversity in first language attrition\*

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Supplementary Fig. 1a: Proportion of lemmatized tokens in five frequency bands across groups in interview corpus



Supplementary Fig. 1b: Proportion of lemmatized tokens in five frequency bands across groups in film retelling corpus



Supplementary Fig. 2a: Proportion of lemmatized tokens in interview data across five frequency bands in COSMAS II corpus



Supplementary Fig. 2b: Proportion of lemmatized tokens in film retelling data across five frequency bands in COSMAS II corpus



Supplementary Fig. 3a: Proportion of GE-EN cognates in the data from controls and Germans in Canada



Supplementary Fig. 3b: Proportion of GE-NL cognates in the data from controls and Germans in the Netherlands



Supplementary Figure 4: A graphic representation of the two functions determined by the Discriminant Analysis



Supplementary Fig. 5a: Histogram of percentage of low-frequency items in interview data



Supplementary Fig. 5b: Histogram of percentage of low-frequency items in film retelling data

## SUPPLEMENTARY ONLINE MATERIAL

		German speakers in Canada	German speakers in the Netherlands			
	Mean	.49	.48			
Total use	Maximum	.88	.98			
	Minimum	.04	.11			
	Mean	.59	.66			
Affiliation	Maximum	1.00	1.00			
	Minimum	.08	.17			
	Mean	.23	.25			
L1 for professional purposes	Maximum	1.00	1.00			
	Minimum	.00	.00			

Supplementary Table 1: Predictor variables relating to L1 use and attitudes

	German speakers in Germany	German speakers in Canada	German speakers in the Netherlands		
n	52	52	49		
Total tokens	88,433	170,068	120,239		
Mean	1700.63	3270.54	2453.86		
Stdev	1248.26	1251.29	603.79		
Maximum	8202	7239	4339		
Minimum	378	948	1010		

Supplementary Table 2: Distribution of sociolinguistic interview (INT) data across groups

	German speakers in Germany	German speakers in Canada	German speakers in the Netherlands
n	53	52	50
Total tokens	36791	37279	36200
Mean	694.17	716.04	724.00
Stdev	342.25	241.28	275.34
Maximum	2256	1579	1292
Minimum	176	348	124

Supplementary Table 3: Distribution of Charlie Chaplin film retelling (CC) data across groups

Supplementary Table 4: Variables included in the model (results from the final step of the stepwise DA)

Variables		Wilks'		
	Tolerance	lambda	F	р
INT: Percentage of items in frequency band 1	.133	.176	14.248	<.001
INT: Percentage of items in COSMAS II frequency band 1	.377	.182	17.020	<.001
CC: words per minute	.872	.160	6.629	.006
INT: Percentage of items in frequency band 3	.501	.199	24.477	<.001
INT: Percentage of items in frequency band 4	.555	.188	19.724	<.001
INT: Effective types	.295	.179	15.384	<.001
INT: MTLD	.340	.157	5.623	.010
INT: Percentage of items among 50 most frequent	.105	.171	11.712	<.001
INT: Percentage of items in frequency band 5	.181	.170	11.372	<.001
INT: Average frequency of items, based on present corpus	.071	.160	6.702	.006
INT: Evenness	.381	.155	4.620	.019

	VFTot		SQE	SQDispersion SQR1pc		CCR2pc		Dis1_1		Dis2_2		
Variable	Beta	Beta			Beta		Beta		Beta		Beta	
Age												
Age at emigration	081	t =694	1/2	t = -1.131	.008	t = .063	.029	t = .235	247	t = -1.892	084	t =638
		p = .489	145	p = .261		p = .950		p = .815		p = .062		p = .526
Length of residence	e106	t =949	137	t = 1.126	098	t =802	.085	t = .719	034	t = .267	.036	t = .279
Longen of Teoreenee		p = .345	.157	p = .263		p = .425		p = .474	.034	p = .790		p = .781
Total use	.149	t = 1.283	159	t = 1.253	054	t = .416	264	t = -2.171	136	t = 1.036	131	t =990
		p = .203	.157	p = .214	.054	p = .678	.204	p = .033	.150	p = .303		p = .325
L1 at work	.204	t = 2.001	034	t = .306	009	t =082	165	t = -1.554	070	t =626	.087	t = .770
		p = .048	.051	p = .760		p = .935		p = .124		p = .533		p = .443
Affiliation	.016	t = .142	- 047	t =395	071	t =593	.148	t = 1.279	015	t =122	055	t =448
		p = .888	.017	p = .694		p = .555		p = .204		p = .903		p = .655
C-Test L2	238	t = 2.249	128	t = 1.111	172	t = -1.470	061	t =549	078	t =656	- 027	t =229
	.230	p = .027	.120	p = .269		p = .145		p = .584		p = .514	.027	p = .819
	$R^{2} = .170$ E (6, 03) = 3,166		R <sup>-</sup>	r = .073	R <sup>-</sup> E (6	(=.049)	R <sup>-</sup>	r = .107	R <sup>-</sup>	$r = .0^{7}/4$	R <sup>-</sup>	= .055
	p = .007		p = .335		p = .602		p = .108		p = .364		p = .571	

Supplementary Table 5: Linear regression models for extralinguistic variables