

PORTAMENTO TYPE	#SARE FING	#SLIDE FORE	#BANTIC FORE	#BANTIC ON	#DEST AFT	#DEST FORE	#CH FING ON	#RELEASE	#GULI UND	#GULI AFT	#COMBO	#DEST UND	#SLIDE TO	#ASC	#DESC	#PORT	#BARS	#PORTASCEND	#PORT RUB	#SPORTRUB	#SLIDE Fow	#SLIDE AR
ASCENDING	DESCENDING	TOTAL # PORT.	# BARS	%ASCEND	#PORT RUB	%SPORTRUB	#SLIDE Fow	#SLIDE AR														
14 VOICE RECORDINGS: Singer, composer, piece, date of recording																						
1. Patti: Mozart Voi che sapete 1905	13	17	6 (1)	6 (1)	7	2 (2)	4							Ascending	Descending	TOTAL	No bars/piece	% ascending portamento	Po w rubato	% portamento used with rubato	Slide before syllable change	Slide after syllable change
2. Melba: Mozart Voi che sapete 1907	7		9 (1)	1 (2)	2		0							38	23	61	71	62%	32	52%	17	7
3. Melba: Mozart Voi che sapete 1905	7 (2)		3 (1)	1 (2)	3		1	1						13	11	24	71	54%	14	58%	10	3
4. Melba: Bishop Home, Sweet Home 1905	7 (1)	16 (1)	9	0 (1)	12 (1)		1	0						19	5	24	71	79%	13	54%		
5. Patti: Bishop Home, Sweet Home 1905	4		23 (1)	13	0 (1)	13 (2)	2	0 (2)						31	26	57	49	54%	40	70%	19	16
6. Gull-Gull: Bishop Home, Sweet Home 1917	7 (1)		25	5 (1)	1 (1)	12 (2)	0							40	25	65	50	62%	45	89%	24	16
7. Marchetti: Chaminade L'Eve 1906	3 (1)		8 (1)	0	0 (1)	1	0	0						29	28	57	50	51%	48	84%	25	14
8. Alberti: Chaminade L'Eve 1914	2 (1)		7 (1)	2	0 (1)	0 (1)		0	0					5	14	19	131	26%	10	53%	11	1
9. Patti: Mozart Batti, Batti 1904	1 (4)		22 (7)	1 (1)	0 (1)	5 (1)	0	0						4	11	15	61	27%	6	53%		
10. Sembrich: Mozart Batti, Batti 1904	2	4	1	0 (1)	2		0	0						5	7	12	100	42%	8	67%	4	2
11. Adams: Groundswell (new song 1902/3)	0		9 (1)	2 (1)	0 (1)	2		0	0					10	8	18	85	16%	16	89%	10	2
12. Sembrich: Groundswell (new song 1906)	1 (1)		17	0 (1)	0	2		0	0					7	15	22	123	32%	21	93%	17	3
13. Melba: Groundswell (new song 1906)	2	12 (2)	5 (1)	0 (1)	5									19	11	30	123	63%	26	87%	14	5
14. Walter: Schubert Am Meer 1904	6 (1)		9 (4)	9 (1)	0 (1)	10 (1)	0 (1)							42	17	59	34	71%	52	88%	13	16
TOTAL of each type in 14 voice recordings (with rubato in brackets)	68 (18)	161 (21)	57 (14)	8 (4)	76 (18)		6 (1)	5 (2)														
TOTAL of each type in 14 voice recordings (including rubato) - 513 total	86	204	71	40	92		9	7														
17 VOICE RECORDINGS (for equal sample size comparison with 7 violin recordings) Singer, composer, piece, date of recording (there'll parameters type (columns)																						
Patti: Mozart Voi che sapete 1905	PL	13	17	6 (1)	6 (1)	7	2 (2)	4						Ascending	Descending	TOTAL	In # bars of singing/slayn g	Percentage of ascending portamento	Po w rubato	% portamento used with rubato	Slide before syllable change	Slide after syllable change
Melba: Bishop Home, Sweet Home 1905		7 (1)	16 (1)	9	0 (1)	12 (1)		1						38	23	61	71	62%	32	52%	17	7
Patti: Bishop Home, Sweet Home 1905		4		23 (1)	11	0 (1)	13 (2)	2	0 (2)					40	25	65	50	62%	45	89%	24	16
Gull-Gull: Bishop Home, Sweet Home 1917		7 (1)		25	5 (1)	1 (1)	12 (2)							29	28	57	50	51%	48	84%	25	16
Patti: Mozart Batti, Batti 1904		5 (4)		22 (7)	1 (1)	0 (1)	5 (1)							28	27	55	18	51%	39	71%	29	8
Sembrich: Mozart Batti, Batti 1904		2	4	1	0 (1)	2								5	7	12	100	42%	8	67%	4	2
Walter: Schubert Am Meer 1904		6 (1)		9 (4)	9 (1)	0 (1)	10 (1)	0 (1)						42	17	59	34	71%	52	88%	13	16
TOTAL of each type in 17 voice recordings (with rubato in brackets)		48 (13)	116 (15)	44 (8)	7 (27)	59 (15)	5 (1)	4 (2)														
TOTAL of each type in 17 violin recordings (including rubato)		59	131	52	34	14	8	6														
7 VIOLIN RECORDINGS: Violinist, composer, piece, date of recording																						
15. Joachim: Brahms Hungarian Dancer No. 2 1903	0	2 (1)	0 (1)	0	6	0	0 (1)							15	12	27	167	56%	16	59%	14	6
16. Joachim: Joachim Romanze in C 1903	14 (1)	13 (4)	1	1 (1)	4 (2)	1	1 (4)		15 (1)	0	0	0	5	46	34	80	170	58%	45	56%	45	7
17. Asen: Tchaikovsky Minuetto 1907	7 (7)	9 (2)	4	0 (1)	0 (1)	1 (1)	0		16 (1)	1	1	1	0	38	27	65	81	58%	57	88%	31	14
18. Neumann: Ernst Neumann in E (1900)	7 (2)	12	reap/collate	1	0		0		14 (6)	1	0	1	0	23	26	51	39	45%	48	94%	25	11
19. Soldat: Spohr Violin Concerto No. 3, Mvt 2: Adagio 1920	5 (7)	16 (1)	0	0	8	0	3 (1)		43 (10)	0	0	1 (1)	0	54	42	96	97	56%	78	81%	70	10
20. Soldat: Schumann Abendstund 1910	7 (1)	1	0	0	1 (1)	0			9 (1)	0	0	2		18	10	28	28	64%	21	71%	15	4
21. Hall: Mendelssohn Violin Concerto in e minor, Mvt 3: Allegretto non troppo 1905	0 (1)	6	0	0	0	0			50 (8)	0	0			21	0	30	131	70%	20	67%	24	5
TOTAL of each type in 7 violin recordings (with rubato in brackets)	40 (19)	50 (11)	6 (1)	1 (2)	35 (8)	2 (1)	9 (1)	0	115 (46)	2	1	10 (1)	6									
TOTAL of each type in 7 violin recordings (including rubato)	59	61	7	3	40	3	20	0	161	2	1	11	6									
TOTAL of each type in 14 recordings (7 vocal and 7 violin, with rubato in brackets)	86 (32)	166 (28)	59 (19)	8 (29)	94 (23)		14 (14)															
TOTAL of each type in 14 recordings (7 vocal and 7 violin, including rubato)	118	192	99	37	117		28															
PERCENTAGE of use by 7 voice vs 7 violin recordings	50%	68%	88%	52%	63%		28%															
TOTAL of each type in all 21 recordings (with rubato in brackets)	108 (37)	211 (34)	63 (15)	9 (4)	111 (24)		16 (14)															
TOTAL of each type in all 21 recordings (including rubato)	145	265	78	12	135		30															
SUMMARY STATISTICS																						
14 VOICE RECORDINGS																						
PORTAMENTO TYPE	ASCEND	DESCEND	TOTAL # PORT.	# BARS	%ASCEND	#PORT RUB	%SPORTRUB	#SLIDE Fow	#SLIDE AR													
N CASES	14	14	14	14	14	14	14	14	14													
MAXIMUM NUMBER	42	28	65	131	79%	52	95%	29	15													
MINIMUM NUMBER	4	1	12	34	26%	8	52%	1	1													
MEAN	20.7	16.3	37.0	80.1	61.5	26.6	6.7	14.6	6.6													
STANDARD DEVIATION (STDEV)	13.8	8.0	20.3	30.9	0.2	15.8	0.2	7.8	5.8													
CO-EFFICIENT OF VARIATION (STDEV/MEAN*100%)	66.8%	49.4%	55.0%	38.6%	30.4%	59.8%	21.8%	53.3%	87.7%													
7 VOICE RECORDINGS																						
PORTAMENTO TYPE	ASCEND	DESCEND	TOTAL # PORT.	# BARS	%ASCEND	#PORT RUB	%SPORTRUB	#SLIDE Fow	#SLIDE AR													
N CASES	7	7	7	7	7	7	7	7	7													
MAXIMUM NUMBER	42	28	65	100	73%	52	88%	29	15													
MINIMUM NUMBER	5	7	12	34	40%	8	54%	4	2													
MEAN	30.4	21.9	52.3	64.6	61.6	17.7	8.7	18.7	10.9													
STANDARD DEVIATION (STDEV)	12.5	7.5	18.1	25.9	6.1	14.6	0.1	8.4	5.2													
CO-EFFICIENT OF VARIATION (STDEV/MEAN*100%)	41.1%	34.3%	34.5%	40.1%	17.0%	38.8%	16.4%	45.0%	48.0%													
7 VIOLIN RECORDINGS																						
PORTAMENTO TYPE	ASCEND	DESCEND	TOTAL # PORT.	# BARS	%ASCEND	#PORT RUB	%SPORTRUB	Guide shifts	Dest. shifts													
N CASES	7	7	7	7	7	7	7	7	7													
MAXIMUM NUMBER	54	42	96	235	79%	78	54%	70	14													
MINIMUM NUMBER	15	9	27	28	45%	16	56%	14	4													
MEAN	30.7	23.1	53.9	116.7	61.6	40.7	6.7	32.0	8.1													
STANDARD DEVIATION (STDEV)	15.2	13.0	27.5	76.9	6.1	22.9	6.1	19.7	3.6													
CO-EFFICIENT OF VARIATION (STDEV/MEAN*100%)	49.6%	56.0%	51.1%	65.4%	13.3%	56.3%	13.3%	61.7%	44.5%													