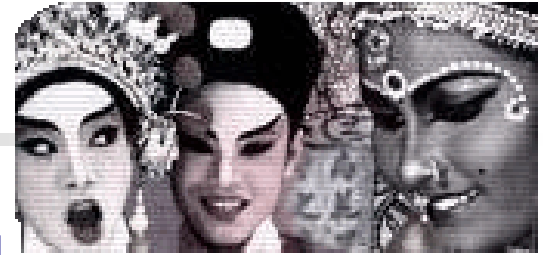


CONTEXT AND AGE CORRELATES OF EMOTIONAL DISPLAY RULES IN MALAYSIA



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Presented by Fatimah Haron at the APA 2005 Convention
Washington DC, USA, 18-21 August 2005

Introduction



- Display rules for various emotions are rules learned early in childhood that help individuals manage and modify their emotional expressions depending on social circumstances

These display rules may be influenced by age differences

- Past Studies: Cole, P. (1986); Harris, P. (1989); Carstensen, L. (1995); Gross, J.J. et al (1997)





Objectives

- To study the nature of display rules of emotional expressions employed by Malaysian undergraduates in various social contexts
- To investigate whether there are age differences in these display rules among Malaysian undergraduates

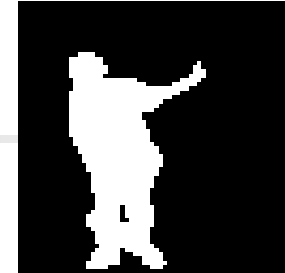


5 Expressive Modes

- Amplify (Show more than you feel it)
- Express (Express it as you feel it)
- Deamplify (Show less than you feel it)
- Qualify (Show the emotion while smiling at the same time)
- Mask (Hide your feelings by smiling)

7 Emotions

- 1) Anger
- 2) Contempt
- 3) Disgust
- 4) Fear
- 5) Happiness
- 6) Sadness
- 7) Surprise



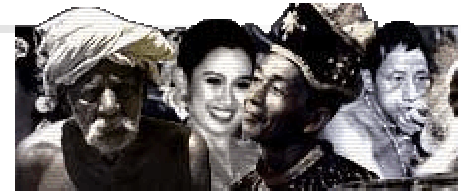
2 Contexts

- 1) Alone (Private)
- 2) Public



7 Targets

- 1) Alone
- 2) Father
- 3) Mother
- 4) Elder brother
- 5) Elder sister
- 6) Younger brother
- 7) Younger sister





Methodology

- Survey
- Sample: undergraduates
 - Sex: Female 496 Male 120
 - Age: 21 years & below 312
 - Above 21 years 296
- Instrument: The *Bahasa Malaysia* version of the Display Rules of Emotional Expression Inventory (DRAI)



Research Question 1

- Are there significant contextual (private and public) differences in the emotions displayed based on the type of person around, namely (1) alone, (2) father, (3) mother, (4) elder brother, (5) elder sister, (6) younger brother and (7) younger sister?



Research Question 2

- Are there significant age (21 years & below and Above 21 years) differences in the emotions displayed, in private and public, based on the type of person around, namely (1) alone, (2) father, (3) mother, (4) older brother, (5) older sister, (6) younger brother, and (7) younger sister?

Results – Research Question 1

Table 1: Public and Private Comparisons of Emotional Expressions When Alone

Public – Private Comparisons	Public			Private			Wilcoxon Sign Rank	
	Mean	SD	Median	Mean	SD	Median	<i>z</i>	<i>p</i>
Anger	3.34	1.38	3.00	2.68	1.22	2.00	-9.45	0.00
Contempt	3.81	1.16	4.00	3.17	1.22	3.00	-9.41	0.00
Disgust	3.73	1.10	4.00	3.08	1.27	3.00	-9.92	0.00
Fear	3.58	1.19	4.00	3.02	1.31	3.00	-8.72	0.00
Happiness	3.52	1.42	4.00	2.71	1.62	2.00	-9.65	0.00
Sadness	3.72	1.49	4.00	3.00	1.51	2.00	-8.64	0.00
Surprise	3.67	1.27	4.00	2.74	1.34	2.00	-6.25	0.00

Results – Research Question 1 (Contd)

Table 2: Public and Private Comparisons of Emotional Expressions with Father

Public – Private Comparisons	Public			Private			Wilcoxon Sign Rank	
	Mean	SD	Median	Mean	SD	Median	<i>z</i>	<i>p</i>
Anger	3.38	1.30	3.00	3.33	1.26	3.00	-1.12	0.26
Contempt	3.78	1.17	4.00	3.40	1.22	3.00	-8.04	0.00
Disgust	3.76	1.12	4.00	3.64	2.07	4.00	-4.47	0.00
Fear	3.62	1.18	4.00	3.33	1.24	3.00	-6.15	0.00
Happiness	3.14	1.41	3.00	2.85	1.43	2.00	-5.80	0.00
Sadness	3.29	1.52	3.00	2.96	1.51	3.00	-6.34	0.00
Surprise	3.48	1.34	3.00	3.15	1.38	3.00	-6.39	0.00

Results – Research Question 1 (Contd)

Table 3: Public and Private Comparisons of Emotional Expressions with Mother

Public – Private Comparisons	Public			Private			Wilcoxon Sign Rank	
	Mean	SD	Median	Mean	SD	Median	<i>z</i>	<i>p</i>
Anger	3.29	1.36	3.00	3.18	1.35	3.00	-1.82	0.07
Contempt	3.66	1.20	4.00	3.13	1.24	3.00	-10.14	0.00
Disgust	3.79	1.13	4.00	3.35	1.26	4.00	-8.70	0.00
Fear	3.53	1.21	4.00	3.20	1.28	3.00	-7.14	0.00
Happiness	2.92	1.46	2.00	2.62	1.46	2.00	-6.68	0.00
Sadness	3.09	1.59	3.00	2.78	3.01	2.00	-8.55	0.00
Surprise	3.32	1.41	3.00	2.91	1.44	2.00	-7.54	0.00

Results – Research Question 1 (Contd)

Table 4: Public and Private Comparisons of Emotional Expressions with Elder Brother

Public – Private Comparisons	Public			Private			Wilcoxon Sign Rank	
	Mean	SD	Median	Mean	SD	Median	<i>z</i>	<i>p</i>
Anger	3.07	1.30	3.00	2.87	1.29	3.00	-3.97	0.00
Contempt	3.39	1.19	3.00	2.74	1.14	2.00	-10.01	0.00
Disgust	3.51	1.19	4.00	2.94	1.18	3.00	-9.56	0.00
Fear	3.38	1.17	3.00	2.99	1.18	3.00	-7.13	0.00
Happiness	3.03	1.45	3.00	2.69	1.40	2.00	-5.94	0.00
Sadness	3.36	1.54	3.00	2.97	1.59	2.00	-6.62	0.00
Surprise	3.30	1.38	3.00	2.91	1.39	2.00	-6.39	0.00

Results – Research Question 1 (Contd)

Table 5: Public and Private Comparisons of Emotional Expressions with Older Sister

Public – Private Comparisons	Public			Private			Wilcoxon Sign Rank	
	Mean	SD	Median	Mean	SD	Median	z	p
Anger	2.96	1.28	3.00	2.67	1.24	2.00	-4.23	0.00
Contempt	3.26	1.28	3.00	2.65	1.20	2.00	-10.18	0.00
Disgust	3.75	1.21	3.00	2.80	1.20	2.00	-9.65	0.00
Fear	3.28	1.21	3.00	2.86	1.21	3.00	-7.78	0.00
Happiness	2.87	1.39	2.00	2.58	1.37	2.00	-5.72	0.00
Sadness	3.12	1.52	3.00	2.64	1.53	2.00	-7.69	0.00
Surprise	3.23	1.31	3.00	2.73	1.35	2.00	-8.20	0.00

Results – Research Question 1 (Contd)

Table 6: Public and Private Comparisons of Emotional Expressions with Younger Brother

Public – Private Comparisons	Public			Private			Wilcoxon Sign Rank	
	Mean	SD	Median	Mean	SD	Median	<i>z</i>	<i>p</i>
Anger	2.93	1.31	3.00	2.54	1.29	2.00	-6.54	0.00
Contempt	3.11	1.26	3.00	2.40	1.16	2.00	-11.66	0.00
Disgust	3.29	1.22	3.00	2.64	1.19	2.00	-10.82	0.00
Fear	3.37	1.25	3.00	2.98	1.29	3.00	-7.60	0.00
Happiness	3.00	1.45	3.00	2.71	1.40	2.00	-6.51	0.00
Sadness	3.24	1.51	3.00	2.90	1.56	2.00	-6.98	0.00
Surprise	3.40	1.39	3.00	2.99	1.41	3.00	-7.08	0.00

Results – Research Question 1 (Contd)

**Table 7: Public and Private Comparisons of Emotional Expressions
with Younger Sister**

Public – Private Comparisons	Public			Private			Wilcoxon Sign Rank	
	Mean	SD	Median	Mean	SD	Median	<i>z</i>	<i>p</i>
Anger	2.87	1.28	3.00	2.64	1.29	2.00	-4.47	0.00
Contempt	3.18	1.22	3.00	2.50	1.20	2.00	-10.36	0.00
Disgust	3.37	1.15	3.00	2.81	1.26	2.00	-9.35	0.00
Fear	3.36	1.20	3.00	3.04	1.29	3.00	-6.51	0.00
Happiness	2.94	1.42	3.00	2.66	1.47	2.00	-5.29	0.00
Sadness	3.17	1.53	3.00	2.74	1.55	2.00	-7.11	0.00
Surprise	3.32	1.40	3.00	3.00	1.39	3.00	-6.79	0.00



Research Question 1: Summary of Results

- Respondents tend to significantly hide their anger, contempt, disgust, fear, happiness, sadness & surprise when in public than in private context, either alone, with older brother and sister and younger brother & sister
- Respondents tend to significantly hide all their emotions except for anger when in public than in private context when with father and mother



Research Question 2

- Are there significant age (21 years & below and Above 21 years) differences in the emotions displayed, in private and public, based on the type of person around, namely (1) alone, (2) father, (3) mother, (4) older brother, (5) older sister, (6) younger brother, and (7) younger sister?

Results – Research Question 2

Table 8: Age Differences in Emotional Expressions When Alone in Private

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	280.94	309	86810.00	300.37	270	81100.00	579	-1.47	0.14
Contempt	259.01	297	76925.00	306.71	265	81278.00	562	-3.63	0.00
Disgust	274.95	295	81110.00	286.68	265	75970.00	560	-0.89	0.37
Fear	283.50	307	87036.00	300.43	275	82617.00	582	-1.25	0.21
Happiness	293.04	312	91429.00	309.59	289	89472.00	601	-1.21	0.23
Sadness	282.64	307	86769.00	301.04	275	82884.00	582	-1.40	0.16
Surprise	157.30	132	20763.00	152.40	176	26822.50	308	-0.50	0.62

Results – Research Question 2 (Cont'd)

Table 9: Age Differences in Emotional Expressions When Alone in Public

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	276.41	304	84030.00	298.96	270	80421.00	573	-1.67	0.10
Contempt	281.65	299	84214.50	289.74	271	78520.50	570	-0.62	0.54
Disgust	265.95	291	77390.50	295.26	268	79129.50	559	-2.27	0.02
Fear	283.83	297	84298.00	283.13	269	76163.00	566	-0.05	0.96
Happiness	301.36	301	90708.00	271.11	272	73743.00	573	-2.23	0.03
Sadness	278.15	307	84278.50	298.98	272	81321.50	575	-1.53	0.13
Surprise	294.68	299	88110.00	276.46	272	75196.00	571	-1.36	0.17

Results – Research Question 2 (Cont'd)

Table 10: Age Differences in Emotional Expressions When with Father in Private

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	283.36	299	84724.00	298.90	272	78582.00	571	-0.42	0.68
Contempt	287.14	301	86430.00	283.66	269	76305.00	570	-0.26	0.79
Disgust	288.62	291	83989.50	266.29	264	70300.50	555	-1.74	0.08
Fear	294.47	291	85689.50	263.19	267	70271.50	558	-2.38	0.02
Happiness	311.21	309	96165.00	288.05	290	83535.00	599	-1.69	0.09
Sadness	277.51	310	86028.50	309.46	274	84791.50	584	-2.35	0.02
Surprise	292.90	302	88457.00	291.50	272	76568.00	574	-0.85	0.40

Results – Research Question 2 (Cont'd)

Table 11: Age Differences in Emotional Expressions When with Father in Public

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	285.32	307	87593.50	291.07	268	78006.50	575	-0.43	0.67
Contempt	290.68	302	87786.50	277.48	266	73809.50	568	-1.01	0.31
Disgust	292.80	292	85497.50	261.57	263	68792.50	555	-2.47	0.01
Fear	294.69	292	85689.50	259.47	263	68241.00	555	-2.71	0.01
Happiness	302.88	307	92985.50	285.34	281	80180.50	588	-1.28	0.20
Sadness	287.00	312	89544.50	295.64	269	79526.50	581	-0.63	0.53
Surprise	299.87	302	90561.50	269.30	268	72173.50	570	-2.28	0.02

Results – Research Question 2 (Cont'd)

Table 12: Age Differences in Emotional Expressions When with Mother in Private

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	305.13	303	92455.50	270.04	273	73720.50	576	-2.61	0.01
Contempt	292.98	298	87307.50	281.59	276	77717.50	574	-0.85	0.39
Disgust	289.67	286	82847.00	263.42	267	70334.00	553	-2.02	0.04
Fear	289.16	288	83279.50	265.96	267	71010.50	555	-1.77	0.08
Happiness	310.27	304	94323.50	290.46	296	85979.50	600	-1.46	0.15
Sadness	277.93	309	85880.00	313.84	280	87875.00	589	-2.66	0.01
Surprise	287.38	300	86213.00	287.64	274	78812.00	574	-0.02	0.98

Results – Research Question 2 (Cont'd)

Table 13: Age Differences in Emotional Expressions When with Mother in Public

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	282.66	301	85081.50	291.80	272	79369.50	573	-0.68	0.50
Contempt	291.33	299	87108.00	279.07	271	75627.00	570	-0.93	0.35
Disgust	286.69	286	81994.00	263.38	264	69531.00	550	-1.83	0.07
Fear	283.04	289	81799.00	270.39	264	71382.00	553	-0.97	0.33
Happiness	301.19	304	91562.50	291.55	288	83965.50	592	-0.71	0.48
Sadness	272.17	307	83555.00	312.10	274	85516.00	581	-2.95	0.00
Surprise	292.01	301	87894.00	283.60	274	77706.00	575	-0.62	0.53

Results – Research Question 2 (Cont'd)

Table 14: Age Differences in Emotional Expressions When with Older Brother in Private

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	268.47	286	76782.50	267.46	249	66597.50	535	-0.08	0.94
Contempt	224.87	250	56218.00	241.41	214	51662.00	464	-1.39	0.17
Disgust	220.26	245	53963.00	237.03	210	49777.00	455	-1.42	0.16
Fear	226.73	246	55774.50	231.65	211	48878.50	457	-0.41	0.68
Happiness	248.90	253	62970.50	236.57	232	54884.50	485	-1.01	0.31
Sadness	231.41	254	58778.00	238.17	214	50968.00	468	-0.56	0.58
Surprise	235.31	251	59063.50	226.96	211	47889.50	462	-0.70	0.49

Results – Research Question 2 (Cont'd)

Table 15: Age Differences in Emotional Expressions When with Older Brother in Public

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	228.14	250	57034.00	232.23	209	48536.00	459	-0.34	0.73
Contempt	227.67	251	57145.50	234.98	210	49345.50	461	-0.61	0.54
Disgust	226.34	247	55906.50	228.88	207	47378.50	454	-0.21	0.83
Fear	231.26	248	57353.50	224.09	207	46386.50	455	-0.60	0.55
Happiness	244.50	253	61859.00	230.59	222	51191.00	475	-1.13	0.26
Sadness	234.80	252	59170.50	230.87	213	49174.50	465	-0.32	0.75
Surprise	233.55	251	58620.50	227.95	210	47870.50	461	-0.46	0.65

Results – Research Question 2 (Cont'd)

Table 16: Age Differences in Emotional Expressions When with Older Sister in Private

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	234.96	241	56626.50	219.05	213	46658.50	454	-1.36	0.18
Contempt	229.68	242	55583.50	231.41	218	50446.00	460	-0.15	0.88
Disgust	223.87	236	52833.00	231.43	218	50452.00	454	-0.65	0.52
Fear	226.29	238	53856.50	232.98	220	51254.50	458	-0.57	0.57
Happiness	254.20	246	62532.00	226.10	234	52908.00	480	-2.33	0.02
Sadness	229.20	250	57301.00	244.72	222	54327.00	472	-1.29	0.20
Surprise	232.94	243	56603.50	228.84	218	49887.50	461	-0.35	0.73

Results – Research Question 2 (Cont'd)

Table 17: Age Differences in Emotional Expressions When with Older Sister in Public

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	231.47	244	56478.50	231.53	218	50474.50	462	-0.01	0.10
Contempt	236.12	243	57376.50	225.30	218	49114.50	461	-0.90	0.37
Disgust	226.72	238	53598.50	230.45	218	50237.50	456	-0.31	0.75
Fear	226.52	238	53911.50	228.58	216	49373.50	454	-0.17	0.86
Happiness	253.07	246	62255.00	224.02	231	51748.00	477	-2.38	0.02
Sadness	224.69	249	55948.50	245.65	219	53797.50	468	-1.72	0.09
Surprise	237.42	244	57931.00	223.78	217	48560.00	461	-1.13	0.26

Results – Research Question 2 (Cont'd)

Table 18: Age Differences in Emotional Expressions When with Younger Brother in Private

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	241.15	252	60769.00	245.00	233	57086.00	485	-0.32	0.75
Contempt	236.38	255	60278.00	262.29	242	63475.00	497	-2.16	0.03
Disgust	235.38	249	58609.00	253.02	238	60219.00	487	-1.47	0.14
Fear	232.66	248	57698.50	251.86	235	59187.50	483	-1.57	0.12
Happiness	265.67	253	67215.50	246.51	258	63600.50	511	-1.53	0.13
Sadness	244.28	261	63756.00	261.33	243	63504.00	504	-1.36	0.18
Surprise	248.52	255	63373.00	245.37	238	58398.00	493	-0.26	0.80

Results – Research Question 2 (Cont'd)

Table 19: Age Differences in Emotional Expressions When with Younger Brother in Public

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	241.75	254	61405.00	253.58	240	60860.00	494	-0.96	0.34
Contempt	253.60	257	65174.00	244.08	240	58579.00	497	-0.76	0.45
Disgust	247.46	250	61865.00	238.25	235	55989.50	485	-0.75	0.45
Fear	247.28	248	61326.00	232.18	231	53634.00	479	-1.23	0.22
Happiness	263.45	254	66916.50	234.98	244	57334.50	498	-2.27	0.02
Sadness	244.84	258	63167.50	253.50	239	60585.50	497	-0.69	0.49
Surprise	252.22	252	63559.50	237.32	237	56245.50	493	-0.20	0.23

Results – Research Question 2 (Cont'd)

Table 20: Age Differences in Emotional Expressions When with Younger Sister in Private

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	213.28	222	47349.00	206.30	197	40641.00	419	-0.62	0.54
Contempt	184.62	210	38769.50	205.13	177	36308.50	387	-1.96	0.05
Disgust	187.46	203	38054.50	191.87	175	33756.50	378	-0.42	0.68
Fear	185.23	200	37045.50	191.17	175	33454.50	375	-0.55	0.58
Happiness	196.12	204	40009.00	201.03	192	38597.00	396	-0.44	0.66
Sadness	184.65	213	39331.50	212.62	181	38483.50	394	-2.54	0.01
Surprise	197.20	209	41215.50	189.13	177	33475.50	386	-0.75	0.46

Results – Research Question 2 (Cont'd)

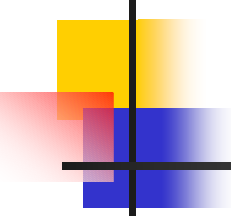
Table 21: Age Differences in Emotional Expressions When with Younger Sister in Public

Type Of Emotion	Age 21 Below			Age Above 21			Total N	Mann-Whitney U	
	Mean Ranks	N	Sum of Ranks	Mean Ranks	N	Sum of Ranks		<i>z</i>	<i>p</i>
Anger	189.63	209	39633.00	195.93	175	34287.00	384	-0.58	0.56
Contempt	196.02	208	40772.50	188.34	176	33147.50	384	-0.70	0.48
Disgust	185.18	200	37035.50	190.17	174	33089.50	374	-0.46	0.64
Fear	187.88	198	37199.50	183.85	173	31806.50	371	-0.38	0.71
Happiness	197.07	203	40005.00	192.74	186	35850.00	389	-0.39	0.70
Sadness	183.47	213	39080.50	210.99	178	37556.00	391	-2.46	0.01
Surprise	195.90	207	40550.50	188.53	177	33369.50	384	-0.67	0.51

Research Question 2: Summary of Results: Significant Differences

	Private	Public
Alone:		
Contempt	Older	
Disgust	Older	
Happiness		Younger
Father:		
Disgust		Younger
Fear	Younger	Younger
Sadness		Older
Surprise		Younger
Mother:		
Anger	Younger	Younger
Disgust	Younger	
Sadness	Older	Older

Research Question 2: Summary of Results: Significant Differences

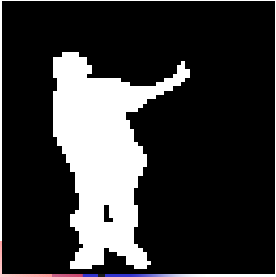


	Private	Public
Older Brother:	No Difference	No difference
Older Sister:		
Happiness	Younger	Younger
Younger Brother:		
Contempt	Older	
Happiness	Younger	Younger
Sadness	Older	Older
Younger Sister:		
Contempt	Older	
Sadness	Older	Older



Conclusion

- There are significant differences in the display of the seven emotions among Malaysian undergraduates whether they are alone or together with significant members of their family namely their fathers, mothers, older brothers, older sisters, younger brothers and younger sisters.
- Generally, there are also significant age differences in the expressions of some of these emotions whether alone or when they are with certain members of the family.
- The findings support those undertaken in other cultures that found the display of emotions tend to depend on factors that are closely related to the culture.



Thank You

