

TABLE 1  
The Differential Emotions Scale<sup>ab</sup>

Factor	Item	Item-factor correlation
I. INTEREST (.76)	Attentive	.88
	Concentrating	.79
	Alert	.87
II. ENJOYMENT (.87)	Delighted	.81
	Happy	.87
	Joyful	.86
III. SURPRISE (.75)	Surprise	.83
	Amazed	.85
	Astonished	.87
IV. SADNESS (.85)	Downhearted	.86
	Sad	.79
	Discouraged	.82
V. ANGER (.68)	Enraged	.74
	Angry	.84
	Mad	.86
VI. DISGUST (.73)	Feeling of distaste	.86
	Disgusted	.85
	Feeling of revulsion	.78
VII. CONTEMPT (.78)	Contemptuous	.89
	Scornful	.90
	Disdainful	.84
VIII. FEAR (.68)	Scared	.88
	Fearful	.90
	Afraid	.89
IX. SHAME/SHYNESS (.83)	Sheepish	.73
	Bashful	.87
	Shy	.88
X. GUILT (.77)	Repentant	.78
	Guilty	.83
	Blameworthy	.80

<sup>a</sup>Item factor correlations for "state" instructions, N = 259; test-retest reliabilities for trait instructions given in parentheses, N = 63.

<sup>b</sup>From Izard, 1977

TABLE 2

## The Differential Emotion Scale for Children (DES-III)

FACTOR	ITEM
I. INTEREST	1. Feel like what you're doing or watching is interesting 2. Feel so interested in what you're doing, caught up in it 3. Feel alert, curious, kind of excited about something
II. ENJOYMENT	4. Feel glad about something 5. Feel happy 6. Feel joyful, like everything is going your way, everything is rosy
III. SURPRISE	7. Feel surprised, like when something suddenly happens you had no idea would happen 8. Feel amazed, like you can't believe what's happened, it was so unusual 9. Feel like you feel when something unexpected happens
IV. SADNESS	10. Feel unhappy, blue, downhearted 11. Feel sad and gloomy, almost like crying 12. Feel discouraged, like you can't make it, nothing is going right.
V. ANGER	13. Feel like screaming at somebody or banging on something 14. Feel angry, irritated, annoyed 15. Feel so mad you're about to blow up
VI. DISGUST	16. Feel like something stinks, puts a bad taste in your mouth 17. Feel disgusted, like something is sickening 18. Feel like things are so rotten they could make you sick
VII. CONTEMPT	19. Feel like somebody is a low-life, not worth the time of day 20. Feel like somebody is a "good-for-nothing" 21. Feel like looking down your nose at somebody
VIII. FEAR	22. Feel scared, uneasy, like something might harm you 23. Feel fearful, like you're in danger, very tense 24. Feel afraid, shaky, and jittery
IX. SHAME/SHYNESS	25. Feel ashamed to be seen, like you just want to disappear or get away from people 26. Feel bashful, embarrassed 27. Feel shy, like you want to hide
X. GUILT	28. Feel regret, sorry about something you did 29. Feel like you did something wrong 30. Feel like you ought to be blamed for something

TABLE 3

Group Factor Loadings of the DES-III Items<sup>a,b</sup>

DES AND DES-III GROUP FACTORS	DES-III ITEM NUMBERS	FACTOR LOADINGS	
		DES	DES-III
I. INTEREST (67)	1	46	68
	2	36	77
	3	55	60
II. ENJOYMENT (100)	4	74	77
	5	86	86
	6	89	79
III. SURPRISE (99)	7	63	67
	8	79	72
	9	79	84
IV. SADNESS (100)	10	87	84
	11	83	84
	12	86	87
V. ANGER (100)	13	65	62
	14	88	88
	15	77	70
VI. DISGUST (100)	16	65	58
	17	90	99
	18	82	82
VII. CONTEMPT (66)	19	45	80
	20	50	86
	21	42	41
VIII. FEAR (99)	22	76	73
	23	81	85
	24	61	81
IX. SHAME/SHYNESS (92)	25	43	46
	26	67	73
	27	73	80
X. GUILT (98)	28	84	83
	29	80	89
	30	84	81

<sup>a</sup> correlations are corrected for attenuation and multiplied by 100

<sup>b</sup> correlations between DES Factor and corresponding DES-III Factor are given in parentheses

N = 206

TABLE 4

Instructions For and Completion of the Scale and Sample DES-III Items

The DES is a list of words that you can use to show how you feel. Each question asks you about a different feeling. We want you to tell us how often you felt each of these feelings during the past week. You can tell us how often you felt each of the feelings on the list by marking one of the letters next to each question.

Here is an example for you to think about. How often did you feel cheerful during the past week?

If you rarely or never felt cheerful during the past week, then you circle the letter A.

If you hardly ever felt cheerful during the past week, then you circle the letter B.

If you sometimes felt cheerful during the past week, then you circle the letter C.

If you often felt cheerful during the past week, then you circle the letter D.

If you very often felt cheerful during the past week, then you circle the letter E.

Now you are ready to read the questions on the list. Read each question and mark your answer. When you are finished check to see that you have answered all thirty questions. It is important that you give an answer to each question.

How Often Did You:	<u>Rarely or Never</u>	<u>Hardly Ever</u>	<u>Some- Times</u>	<u>Often</u>	<u>Very Often</u>
1. Feel regret, sorry about something you did	A	B	C	D	E
2. Feel glad about something	A	B	C	D	E
3. Feel like something stinks, puts a bad taste in your mouth	A	B	C	D	E

TABLE 5

Exploratory Oblique Factor Pattern of DES-IIIa,b

FACTORS	ITEMS GROUPED BY A PRIORI CLUSTERS																																		
	INT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30				
INTEREST	53	61	24	--	16	14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
ENJOYMENT	--	--	-24	-53	-67	-42	--	--	--	12	--	--	--	--	--	--	22	29	--	--	--	--	--	--	-14	--	--	--	--	--	--	--	--	--	
SURPRISE	--	--	-12	-12	--	-15	-65	-57	-41	--	--	--	--	12	--	--	-11	-16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SADNESS	--	--	--	--	--	-12	72	49	39	--	--	--	--	--	--	--	--	15	--	--	--	--	12	--	--	--	--	--	12	--	--	--	--	--	--
ANGER	--	--	--	--	--	--	--	--	-12	--	--	--	--	-73	-46	-66	-15	-13	-18	--	--	17	--	--	--	--	--	--	--	--	--	--	-12	--	--
CONTEMPT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	14	16	17	76	75	31	--	--	--	12	--	--	--	--	--	--	--	--	--
FEAR	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-14	--	--	--	--	--	-57	-86	-39	-12	--	--	--	--	-12	--	--	--	--
SHAME/SHY	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-20	-35	-79	-65	--	--	--	-11	13	--	--
GUILT	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-11	-15	-17	--	--	20	--	--	--	--	--	--	--	--	--	-36	-52	-59	--

<sup>a</sup> pattern coefficients between .-10 and .10 are replaced with a "--"

<sup>b</sup> N = 857

TABLE 6

Centroid Multiple Groups Factor Loadings of DES-III<sup>a,b</sup>

FACTORS	ITEMS GROUPED BY A PRIORI CLUSTERS																													
	INT	JOY	SRP	SAD	ANG	DSC	CNT	FER	SHY	GLT	INT	JOY	SRP	SAD	ANG	DSC	CNT	FER	SHY	GLT										
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
INTEREST	62	60	44	48	60	53	27	34	21	-29	-19	-23	-13	-14	-7	-1	-5	-21	-9	-1	-9	-9	-9	-22	-24	-5	-4	-6	-9	1
ENJOYMENT	41	39	48	65	81	65	28	21	13	-47	-30	-41	-29	-37	-25	-12	-24	-39	-19	18	-17	-22	-27	-24	-33	-15	-22	-12	-18	-9
SURPRISE	21	26	35	28	22	30	67	56	43	3	9	6	6	-3	17	11	15	16	3	14	13	24	21	11	7	18	13	14	13	19
SADNESS	-19	-19	-20	-32	-40	-47	-02	02	14	75	69	65	50	55	51	23	36	57	20	24	27	51	47	54	57	33	41	39	41	31
ANGER	-13	-4	-10	-21	-31	-38	-3	8	11	51	46	58	71	62	77	30	39	57	37	41	42	37	40	38	44	23	27	29	34	18
DISGUST	-11	-5	-11	-19	-37	-38	6	17	19	49	41	53	48	56	55	37	63	69	43	47	46	41	44	40	43	34	36	31	35	33
CONTEMPT	-9	0	-7	-15	-25	-20	01	11	13	28	20	31	41	45	46	30	38	50	68	83	42	26	29	23	34	15	20	11	19	22
FEAR	-10	-9	-12	-18	-28	-28	11	14	19	50	52	49	35	40	41	30	26	44	18	27	27	72	79	59	55	37	44	38	40	31
SHAME/SHY	-6	-9	-12	-17	-30	-28	3	12	17	43	46	46	30	35	33	24	33	41	20	24	23	42	42	58	55	74	71	33	42	32
GUILT	-9	-5	0	-11	-17	-21	13	11	20	43	48	42	32	35	33	24	29	43	11	19	28	46	40	49	43	40	37	52	72	49

<sup>a</sup> correlations corrected for attenuation

<sup>b</sup>N = 857

TABLE 7

Factor Pattern from the Confirmatory Multiple Factor Analysis<sup>a</sup>

FACTORS	ITEMS GROUPED BY A PRIORI CLUSTERS																													
	INT	JOY	SRP	SAD	ANG	DSG	CNT	FER	SHY	CLT																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
INTEREST	57	64	23	0	0	0	0	16	0	0	0	0	0	0	0	0	0	-13	-08	0	0	0	0	-10	-16	0	0	0	0	0
ENJOYMENT	0	0	31	70	80	61	0	0	0	20	0	0	-11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SURPRISE	0	0	15	0	0	16	71	52	48	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SADNESS	0	0	0	0	0	-22	0	0	0	73	74	53	0	0	0	0	0	0	0	0	0	0	0	0	0	-19	0	0	0	0
ANGER	0	0	0	0	0	-08	0	0	0	0	0	22	70	65	71	0	0	0	0	0	16	0	0	0	12	0	0	0	0	-20
DISGUST	0	0	0	11	0	0	-16	0	0	0	0	0	0	0	0	28	56	76	0	0	0	0	0	0	0	0	0	0	0	0
CONTEMPT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	80	34	0	0	0	09	0	0	0	0	16
FEAR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	-09	0	0	74	77	39	13	0	0	0	0	0
SHAME/SHY	0	0	0	0	0	0	-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	47	86	68	0	0	0
GUILT	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	13	0	0	11	0	0	0	54	65	60

<sup>a</sup>N = 857

TABLE 8

Correlation Between Factors Derived From  
the Multiple Groups and Multiple Factor Solutions

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<u>FACTOR</u>	<u>CORRELATION</u>
I. INTEREST	92
II. ENJOYMENT	96
III. SURPRISE	92
IV. SADNESS	91
V. ANGER	97
VI. DISGUST	87
VII. CONTEMPT	95
VIII. FEAR	97
IX. SHAME/SHYNESS	97
X. GUILT	91

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TABLE 9

a,b

Intercorrelation of the Ten Emotions Measured by the DES-III

	INTEREST	ENJOYMENT	SURPRISE	SADNESS	ANGER	DISGUST	CONTEMPT	FEAR	SHAME/SHY	GUILT
I. INTEREST	100	50	28	-22	-11	-09	-06	-12	-11	-05
II. ENJOYMENT	76	100	25	-42	-32	-30	-20	-26	-26	-15
III. SURPRISE	49	38	100	05	06	14	09	17	12	16
IV. SADNESS	-34	-57	08	100	55	45	27	54	47	43
V. ANGER	-16	-43	10	74	100	75	45	41	34	32
VI. DISGUST	-16	-45	25	69	50	100	45	39	38	34
VII. CONTEMPT	-09	-28	15	37	62	70	100	37	35	30
VIII. FEAR	-19	-35	26	72	55	59	27	100	68	64
IX. SHAME/SHYNESS	-17	-36	19	65	47	58	23	49	100	62
X. GUILT	-08	-23	27	64	47	57	19	43	41	100

<sup>a</sup> correlations below the diagonal are corrected for attenuation

<sup>b</sup> N = 857

TABLE 10

a

DES-III Emotion Profiles: Means (Standard Deviations)  
(Range = 0-12)

FACTOR	MALES				FEMALES				TOTAL (N=854)
	YNG (N=119)	MID (N=178)	OLD (N=116)	TOT (N=413)	YNG (N=136)	MID (N=199)	GLD (N=106)	TOT (N=441)	
I. INTEREST	7.9 (2.2)	7.7 (2.1)	7.7 (2.2)	7.7 (2.2)	7.6 (2.3)	7.7 (2.0)	7.5 (2.3)	7.6 (2.2)	7.7 (2.2)
II. ENJOYMENT	8.3 (2.1)	8.1 (2.1)	7.9 (2.1)	8.1 (2.3)	8.6 (2.1)	8.7 (2.2)	8.6 (2.5)	8.6 (2.3)	8.4 (2.3)
III. SURPRISE	5.1 (2.4)	5.6 (2.3)	5.1 (2.3)	5.3 (2.4)	5.5 (2.4)	6.0 (2.1)	5.5 (2.4)	5.7 (2.3)	5.5 (2.3)
IV. SADNESS	4.1 (2.5)	4.7 (2.3)	4.5 (2.6)	4.5 (2.5)	5.3 (2.7)	6.0 (3.0)	5.7 (2.7)	5.7 (2.8)	5.1 (2.7)
V. ANGER	5.7 (2.8)	6.3 (2.8)	5.9 (3.0)	6.0 (2.8)	5.4 (2.8)	6.2 (2.9)	5.9 (2.8)	5.9 (2.8)	6.0 (2.8)
VI. DISGUST	4.2 (2.5)	5.0 (2.6)	4.5 (2.6)	4.6 (2.6)	3.8 (2.3)	4.5 (2.1)	4.1 (2.1)	4.2 (2.2)	4.4 (2.4)
VII. CONTEMPT	3.5 (2.6)	4.8 (2.7)	4.5 (2.6)	4.4 (2.7)	3.3 (2.5)	4.0 (2.7)	3.6 (2.7)	3.7 (2.6)	4.0 (2.6)
VIII. FEAR	3.4 (2.4)	3.9 (2.4)	2.7 (2.2)	3.4 (2.4)	4.0 (2.8)	4.3 (3.0)	3.8 (2.6)	3.1 (2.8)	3.7 (2.6)
IX. SHAME/SHY	3.5 (2.8)	4.7 (2.7)	3.9 (2.7)	4.1 (2.8)	4.2 (2.6)	5.0 (2.7)	4.4 (2.3)	4.6 (2.6)	4.4 (2.7)
X. GUILT	4.8 (2.2)	5.0 (2.1)	4.5 (1.9)	4.8 (2.1)	4.8 (2.1)	5.2 (2.1)	5.2 (2.4)	5.1 (2.2)	5.0 (2.1)

a

YNG = youngest group, ages 11.4 - 13.11

MID = middle group, ages 14.0 - 15.11

OLD = oldest group, ages 16.0 - 17.10

TABLE 11  
Centroid Multiple Groups Factor Loadings of DES-III<sup>a</sup>,<sup>b</sup>

FACTORS	ITEMS GROUPED BY A PRIORI CLUSTERS																													
	INT	JOY	SRP	SAD	ANG	DSG	CNT	FER	SHY	GLT																				
	1 2 3A	4 5 6	7 8 9	10 11 12	13 14 15	16 17 18	19 20 21A	22 23 24A	25A 26 27	28 29 30																				
INTEREST	54 53 44	32 42 47	19 31 18	-25 -12 -17	0 -3 -6	-6 0 -11	-2 -10 11	-5 7 0	-17 17 2	5 -2 6																				
ENJOYMENT	35 32 29	64 68 58	24 32 14	-49 -18 -29	-31 -31 -31	-15 -6 -33	-16 -23 6	-24 -13 -13	-19 -2 -9	2 -8 7																				
SURPRISE	9 31 20	23 32 25	71 57 41	-1 13 14	16 13 6	23 23 13	8 7 14	18 20 13	21 22 21	19 34 32																				
SADNESS	-12 -18	-16 -32 -35 -38	-2 12 14	67 61 47	44 66 55	33 25 55	29 45 -1	52 44 49	59 26 37	32 53 28																				
ANGER	-2 2 -7	-30 -30 -27	6 9 14	52 42 49	63 59 79	25 29 56	30 47 18	43 41 34	39 20 29	19 45 26																				
DISGUST	-14 1 -3	-24 -21 -22	21 25 18	38 46 46	51 48 45	39 52 62	39 35 22	44 39 37	52 31 33	25 41 23																				
CONTEMPT	3 4 -8	-24 -10 -6	13 16 2	37 18 26	47 40 33	25 26 42	64 64 31	21 28 10	30 24 25	17 22 17																				
FEAR	1 1 1	-14 -15 -16	4 15 18	32 42 34	34 36 30	27 20 31	17 18 5	81 77 79	37 26 21	23 36 19																				
SHAME/SHY	-7 -7	1 -14 -7 -13	19 23 21	39 54 34	34 40 32	24 42 39	25 35 13	42 35 42	29 58 32	30 52 36																				
GUILT	3 3 -3	-5 8 -2	24 32 26	36 44 33	36 31 37	17 30 30	15 25 11	31 35 39	62 26 26	55 70 51																				

<sup>a</sup>correlations corrected for attenuation

<sup>b</sup>N = 456

TABLE 12

DES-III Emotion Profiles: Means (Standard Deviations)  
(Range = 0-12)

FACTOR	MALES		FEMALES		TOTAL (N = 449)
	Ages 8-9 (N = 90)	Ages 10-11 (N = 139)	Ages 8-9 (N = 90)	Ages 10-11 (N = 130)	
I. INTEREST	7.79 (2.47)	8.16 (2.31)	7.27 (2.64)	8.15 (2.19)	7.91 (2.39)
II. ENJOYMENT	7.54 (2.50)	7.88 (2.81)	8.28 (2.56)	8.70 (2.14)	8.13 (2.54)
III. SURPRISE	5.89 (2.74)	5.79 (2.68)	6.05 (2.98)	5.95 (2.50)	5.91 (2.69)
IV. SADNESS	4.98 (2.50)	5.04 (2.84)	4.99 (2.65)	5.08 (2.70)	5.03 (2.69)
V. ANGER	6.46 (3.29)	6.22 (3.10)	5.33 (2.94)	6.29 (2.89)	6.11 (3.04)
VI. DISGUST	5.10 (2.74)	4.55 (2.64)	4.87 (2.93)	4.52 (2.33)	4.71 (2.63)
VII. CONTEMPT	4.09 (2.72)	3.96 (2.49)	3.28 (2.81)	3.77 (2.45)	3.79 (2.60)
VIII. FEAR	4.12 (3.38)	4.14 (3.24)	4.18 (3.36)	4.96 (2.98)	4.40 (3.23)
IX. SHAME/SHYNESS	4.17 (2.85)	3.73 (2.57)	4.07 (2.40)	4.46 (2.79)	4.10 (2.67)
X. GUILT	5.71 (2.80)	5.45 (2.52)	4.78 (2.43)	4.98 (2.18)	5.23 (2.48)

TABLE 13  
 Intercorrelations of the Ten Emotions Measured by the DES-III<sup>a,b</sup>

	INTEREST	ENJOYMENT	SURPRISE	SADNESS	ANGER	DISGUST	CONTEMPT	FEAR	SHAME/SHY	GUILT
I. INTEREST	100	37	22	-17	-03	-06	0	0	0	03
II. ENJOYMENT	63	100	26	-35	-32	-21	-13	-17	-11	0
III. SURPRISE	40	42	100	09	11	21	10	15	22	29
IV. SADNESS	-31	-55	15	100	54	42	27	44	44	39
V. ANGER	-04	-46	17	82	100	72	37	38	34	34
VI. DISGUST	-11	-36	38	74	44	100	32	33	38	28
VII. CONTEMPT	0	-21	18	46	59	61	100	25	46	32
VIII. FEAR	01	-23	22	61	50	51	17	100	50	44
IX. SHAME/SHYNESS	01	-18	38	72	52	68	27	36	100	67
X. GUILT	05	01	49	64	51	50	19	32	41	100

<sup>a</sup> correlations below the diagonal are corrected for attenuation

<sup>b</sup> N = 456