

ANNEX IV

Resultats de l'anàlisi quantitativa

variable A.Res

• CELL LOADING • 22/4/0•13:54
 • Cell file: variable A.Cel
 • 22/4/00•12:47
 • Token file: variable A
 • Conditions: variable A.Cnd
 Number of cells: 24
 Application value(s): 1
 Total no. of factors: 9

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	613	6	619	68
	%	99	1		
b	N	273	24	297	32
	%	92	8		
Total	N	886	30	916	
	%	97	3		

2 (3)					
m	N	749	13	762	83
	%	98	2		
g	N	76	16	92	10
	%	83	17		
j	N	61	1	62	7
	%	98	2		
Total	N	886	30	916	
	%	97	3		

3 (4)					
y	N	329	0	329	36
	%	100	0		* KnockOut *
x	N	557	30	587	64
	%	95	5		
Total	N	886	30	916	
	%	97	3		

4 (5)					
s	N	688	23	711	78
	%	97	3		
p	N	198	7	205	22
	%	97	3		
Total	N	886	30	916	
	%	97	3		

variable A.Res

```
-----
TOTAL N      886      30      916
      %       97       3
```

- CROSS TABULATION • 22/4/00•13:54
- Cell file: variable A.Cel
- 22/4/00•12:47
- Token file: variable A
- Conditions: variable A.Cnd

Group #1 -- horizontally.
 Group #2 -- vertically.

	a	%	b	%	Σ	%
m 1:	535	99:	214	96	749	98
-:	3	1:	10	4	13	2
Σ:	538	:	224		762	
g 1:	32	91:	44	77	76	83
-:	3	9:	13	23	16	17
Σ:	35	:	57		92	
j 1:	46	100:	15	94	61	98
-:	0	0:	1	6	1	2
Σ:	46	:	16		62	
Σ 1:	613	99:	273	92	886	97
-:	6	1:	24	8	30	3
Σ:	619	:	297		916	

- CROSS TABULATION • 22/4/00•13:54
- Cell file: variable A.Cel
- 22/4/00•12:47
- Token file: variable A
- Conditions: variable A.Cnd

Group #1 -- horizontally.
 Group #3 -- vertically.

	a	%	b	%	Σ	%
y 1:	217	100:	112	100	329	100
-:	0	0:	0	0	0	0
Σ:	217	:	112		329	
x 1:	396	99:	161	87	557	95
-:	6	1:	24	13	30	5
Σ:	402	:	185		587	
Σ 1:	613	99:	273	92	886	97
-:	6	1:	24	8	30	3
Σ:	619	:	297		916	

- CROSS TABULATION • 22/4/00•13:55

variable A.Res

- Cell file: variable A.Cel
- 22/4/00•12:47
- Token file: variable A
- Conditions: variable A.Cnd

Group #1 -- horizontally.
 Group #4 -- vertically.

	a	%	b	%	Σ	%
s 1:	455	99:	233	92	688	97
-:	4	1:	19	8	23	3
Σ:	459	:	252		711	
p 1:	158	99:	40	89	198	97
-:	2	1:	5	11	7	3
Σ:	160	:	45		205	
Σ 1:	613	99:	273	92	886	97
-:	6	1:	24	8	30	3
Σ:	619	:	297		916	

- CROSS TABULATION • 22/4/00•13:55
- Cell file: variable A.Cel
- 22/4/00•12:47
- Token file: variable A
- Conditions: variable A.Cnd

Group #2 -- horizontally.
 Group #3 -- vertically.

	m	%	g	%	j	%	Σ	%
y 1:	269	100:	34	100:	26	100	329	100
-:	0	0:	0	0:	0	0	0	0
Σ:	269	:	34	:	26		329	
x 1:	480	97:	42	72:	35	97	557	95
-:	13	3:	16	28:	1	3	30	5
Σ:	493	:	58	:	36		587	
Σ 1:	749	98:	76	83:	61	98	886	97
-:	13	2:	16	17:	1	2	30	3
Σ:	762	:	92	:	62		916	

- CROSS TABULATION • 22/4/00•13:55
- Cell file: variable A.Cel
- 22/4/00•12:47
- Token file: variable A
- Conditions: variable A.Cnd

Group #2 -- horizontally.
 Group #4 -- vertically.

m	%	g	%	j	%	Σ	%
---	---	---	---	---	---	---	---

variable A.Res (prob).§

• CELL CREATION • 22/4/00•13:17

Name of token file: variable A
 Name of condition file: variable A.Cnd
 (
 (1)
 (2)
 (3)
)

Number of cells: 4
 Application value(s): 1
 Total no. of factors: 4

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	613	6	619	68
	%	99	1		
b	N	273	24	297	32
	%	92	8		
Total	N	886	30	916	
	%	97	3		

2 (3)					
u	N	810	14	824	90
	%	98	2		
n	N	76	16	92	10
	%	83	17		
Total	N	886	30	916	
	%	97	3		

TOTAL	N	886	30	916	
	%	97	3		

Name of new cell file: variable A.Cel

• CROSS TABULATION • 22/4/0•13:19

• Cell file: variable A.Cel (copia)
 • 22/4/0•13:17
 • Token file: variable A (copia)
 • Conditions: variable A.Cnd (copia)

Group #1 -- horizontally.
 Group #2 -- vertically.

	a	%	b	%	Σ	%
u 1:	581	99:	229	95	810	98
-:	3	1:	11	5	14	2

variable A.Res (prob).§

```

Σ: 584      : 240      | 824
+ - - - - + - - - - + - - - -
n 1: 32 91: 44 77| 76 83
-: 3 9: 13 23| 16 17
Σ: 35      : 57      | 92
+-----+-----+-----
Σ 1: 613 99: 273 92| 886 97
-: 6 1: 24 8| 30 3
Σ: 619      : 297      | 916

```

- CELL LOADING • 22/4/0•15:13
- Cell file: variable A.Cel (prob)
- 22/4/00•13:17
- Token file: variable A
- Conditions: variable A.Cnd
 - Number of cells: 4
 - Application value(s): 1
 - Total no. of factors: 4

Group	Apps	Non- apps	Total	%

1 (2)				
a	N	613	6	619 68
	%	99	1	
b	N	273	24	297 32
	%	92	8	
Total	N	886	30	916
	%	97	3	

2 (3)				
u	N	810	14	824 90
	%	98	2	
n	N	76	16	92 10
	%	83	17	
Total	N	886	30	916
	%	97	3	

TOTAL	N	886	30	916
	%	97	3	

- CELL LOADING • 5/5/00•12:40
- Cell file: variable A.Cel (prob)
- 22/4/00•13:17
- Token file: variable A
- Conditions: variable A.Cnd
 - Number of cells: 4
 - Application value(s): 1
 - Total no. of factors: 4

variable A.Res (prob).§

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	613	6	619	68
	%	99	1		
b	N	273	24	297	32
	%	92	8		
Total	N	886	30	916	
	%	97	3		

2 (3)					
u	N	810	14	824	90
	%	98	2		
n	N	76	16	92	10
	%	83	17		
Total	N	886	30	916	
	%	97	3		

TOTAL	N	886	30	916	
	%	97	3		

* BINOMIAL VARBRUL, 1 step * 5/5/00*12:40
 Name of cell file: variable A.Cel (prob)

Using fast, less accurate method.
 Averaging by weighting factors.
 One-level binomial analysis...

Run # 1, 4 cells:
 Iterations: 1 2 3 4 5 6
 Convergence at Iteration 6
 Input 0.985

Group Factor Weight App/Total Input&Weight

1:	a	0.641	0.99	0.99
	b	0.230	0.92	0.95
2:	u	0.551	0.98	0.99
	n	0.137	0.83	0.91

Cell	Total	App'ns	Expected	Error
bu	240	229	230.149	0.140
bn	57	44	42.844	0.126
au	584	581	579.847	0.322
an	35	32	33.165	0.781

Total Chi-square = 1.3681
 Chi-square/cell = 0.3420
 Log likelihood = -104.941
 Maximum possible likelihood = -104.303

variable A.Res (prob).§

Fit: X-square(2) = 1.275, accepted, p = 0.5329

Execution time: 0 min, 5.0 sec

• BINOMIAL VARBRUL • 5/5/00•12:42
Name of cell file: variable A.Cel (prob)

Using fast, less accurate method.
Averaging by weighting factors.
Threshold, step-up/down: 0.050001

Stepping Up..

----- Level # 0 -----

Run # 1, 1 cells:
Iterations: 1 2
Convergence at Iteration 2
Input 0.967
Log likelihood = -132.049

----- Level # 1 -----

Run # 2, 2 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.980
Group # 1 -- a: 0.671, b: 0.185
Log likelihood = -117.169 Significance = 0.000

Run # 3, 2 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.978
Group # 2 -- u: 0.562, n: 0.096
Log likelihood = -113.426 Significance = 0.000

Add Group # 2 with factors un

----- Level # 2 -----

Run # 4, 4 cells:
Iterations: 1 2 3 4 5 6
Convergence at Iteration 6
Input 0.985
Group # 1 -- a: 0.641, b: 0.230
Group # 2 -- u: 0.551, n: 0.137
Log likelihood = -104.941 Significance = 0.000
Maximum possible likelihood = -104.303
Fit: X-square(2) = 1.275, accepted, p = 0.5329

Add Group # 1 with factors ab
Best stepping up run: #4

variable A.Res (prob).§

Stepping Down...

----- Level # 2 -----

Run # 5, 4 cells:

Iterations: 1 2 3 4 5 6

Convergence at Iteration 6

Input 0.985

Group # 1 -- a: 0.641, b: 0.230

Group # 2 -- u: 0.551, n: 0.137

Log likelihood = -104.941

Maximum possible likelihood = -104.303

Fit: X-square(2) = 1.275, accepted, p = 0.5329

----- Level # 1 -----

Run # 6, 2 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.978

Group # 2 -- u: 0.562, n: 0.096

Log likelihood = -113.426 Significance = 0.000

Run # 7, 2 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.980

Group # 1 -- a: 0.671, b: 0.185

Log likelihood = -117.169 Significance = 0.000

All remaining groups significant

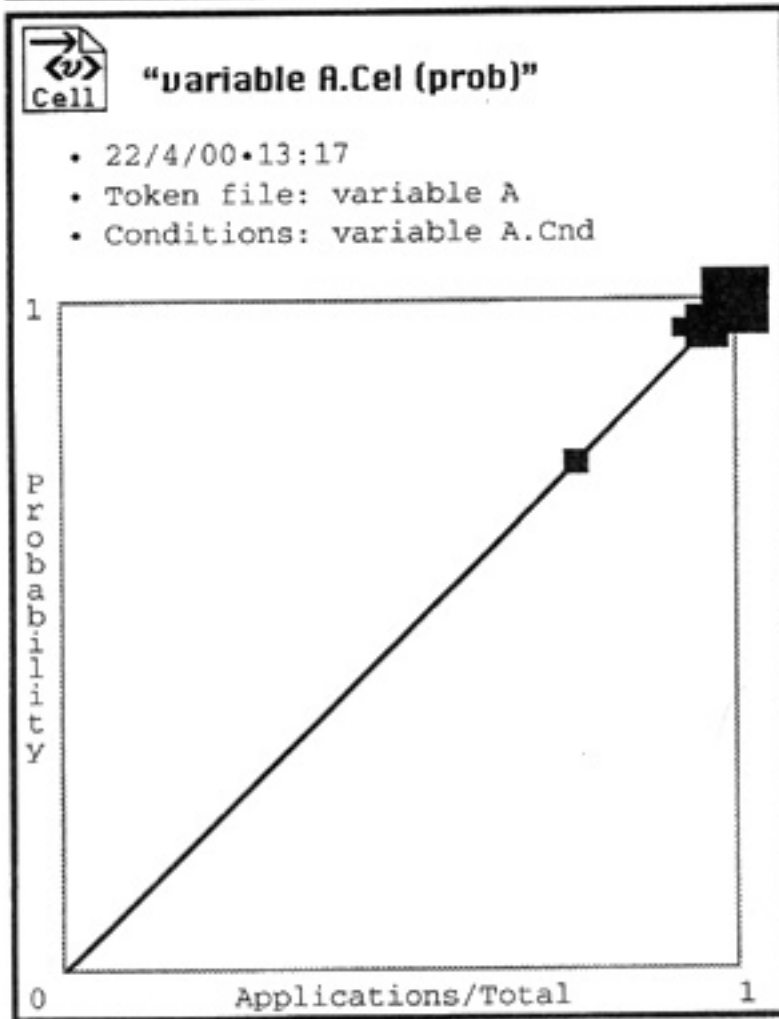
Groups eliminated while stepping down: None

Best stepping up run: #4

Best stepping down run: #5

Execution time: 0 min, 12.6 sec

Scattergram



variable A.Res (centering)

• CELL CREATION • 25/4/0•12:36

Name of token file: variable A (prob)
 Name of condition file: variable A.Cnd (centering)
 (
 (1)
 (2)
 (3)
)

Number of cells: 4
 Application value(s): 1
 Total no. of factors: 4

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	613	6	619	68
	%	99	1		
b	N	273	24	297	32
	%	92	8		
Total	N	886	30	916	
	%	97	3		

2 (3)					
u	N	810	14	824	90
	%	98	2		
n	N	76	16	92	10
	%	83	17		
Total	N	886	30	916	
	%	97	3		

TOTAL	N	886	30	916	
	%	97	3		

Name of new cell file: variable A.Cel (centering)

• BINOMIAL VARBRUL, 1 step • 25/4/00•12:37

Name of cell file: variable A.Cel (centering)

Using fast, less accurate method.
 Averaging by centering factors.
 One-level binomial analysis..

Run # 1, 4 cells:
 Iterations: 1 2 3 4 5
 Convergence at Iteration 5
 Input 0.954

Group Factor Weight App/Total Input&Weight

variable A.Res (centering)

1:	a	0.710	0.99	0.98
	b	0.290	0.92	0.89
2:	u	0.735	0.98	0.98
	n	0.265	0.83	0.88

Cell	Total	App'ns	Expected	Error
bu	240	229	230.131	0.135
bn	57	44	42.850	0.124
au	584	581	579.847	0.322
an	35	32	33.172	0.793

Total Chi-square = 1.3743

Chi-square/cell = 0.3436

Log likelihood = -104.946

Maximum possible likelihood = -104.303

Fit: X-square(2) = 1.285, accepted, p = 0.5300

Execution time: 0 min, 4.6 sec

• BINOMIAL VARBRUL • 25/4/00•12:47
Name of cell file: variable A.Cel (centering)

Using fast, less accurate method.

Averaging by centering factors.

Threshold, step-up/down: 0.050001

Stepping Up..

----- Level # 0 -----

Run # 1, 1 cells:

Iterations: 1 2

Convergence at Iteration 2

Input 0.967

Log likelihood = -132.049

----- Level # 1 -----

Run # 2, 2 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.971

Group # 1 -- a: 0.750, b: 0.250

Log likelihood = -117.159 Significance = 0.000

Run # 3, 2 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.943

Group # 2 -- u: 0.777, n: 0.223

Log likelihood = -113.439 Significance = 0.000

Add Group # 2 with factors un

variable A.Res (centering)

----- Level # 2 -----

Run # 4, 4 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.954
Group # 1 -- a: 0.710, b: 0.290
Group # 2 -- u: 0.735, n: 0.265
Log likelihood = -104.946 Significance = 0.000
Maximum possible likelihood = -104.303
Fit: X-square(2) = 1.285, accepted, p = 0.5300

Add Group # 1 with factors ab
Best stepping up run: #4

Stepping Down..

----- Level # 2 -----

Run # 5, 4 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.954
Group # 1 -- a: 0.710, b: 0.290
Group # 2 -- u: 0.735, n: 0.265
Log likelihood = -104.946
Maximum possible likelihood = -104.303
Fit: X-square(2) = 1.285, accepted, p = 0.5300

----- Level # 1 -----

Run # 6, 2 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.943
Group # 2 -- u: 0.777, n: 0.223
Log likelihood = -113.439 Significance = 0.000

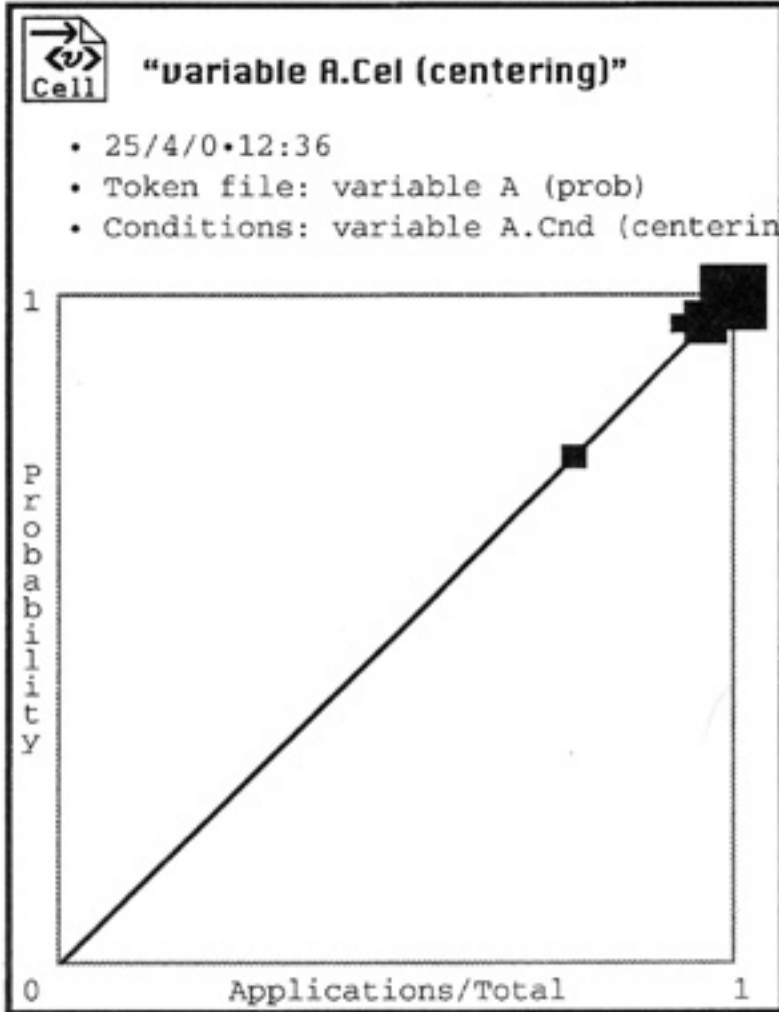
Run # 7, 2 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.971
Group # 1 -- a: 0.750, b: 0.250
Log likelihood = -117.159 Significance = 0.000

All remaining groups significant

Groups eliminated while stepping down: None
Best stepping up run: #4
Best stepping down run: #5

Execution time: 0 min, 11.9 sec

Scattergram



variable B.Res

	%	95	5		
b	N	157	16	173	40
	%	91	9		
Total	N	404	28	432	
	%	94	6		

TOTAL	N	404	28	432	
	%	94	6		

Name of new cell file: variable B.Cel

variable B.Res(gi)

• CELL CREATION • 16/5/00•14:00

Name of token file: variable B (gi)
 Name of condition file: variable B.Cnd(gi)

(
 (1)
 (2)
 (3)
 (4)
 (5)
)

Number of cells: 17
 Application value(s): 1
 Total no. of factors: 9

Group		Apps	Non- apps	Total	%

1 (2)					
t	N	318	25	343	79
	%	93	7		
p	N	84	2	86	20
	%	98	2		
s	N	2	1	3	1
	%	67	33		
Total	N	404	28	432	
	%	94	6		

2 (3)					
u	N	362	15	377	87
	%	96	4		
n	N	42	13	55	13
	%	76	24		
Total	N	404	28	432	
	%	94	6		

3 (4)					
x	N	162	20	182	42
	%	89	11		
y	N	242	8	250	58
	%	97	3		
Total	N	404	28	432	
	%	94	6		

4 (5)					
a	N	247	12	259	60
	%	95	5		
b	N	157	16	173	40

variable B.Res(gi)

	%	91	9	
Total N		404	28	432
	%	94	6	

	%	94	6	
TOTAL N		404	28	432
	%	94	6	

Name of new cell file: variable B.Cel(gi)

• BINOMIAL VARBRUL, 1 step • 16/5/00•14:01
 Name of cell file: variable B.Cel(gi)

Using fast, less accurate method.
 Averaging by weighting factors.
 One-level binomial analysis..

Run # 1, 17 cells:
 Iterations: 1 2 3 4 5 6 7
 Convergence at Iteration 7
 Input 0.967

Group Factor Weight App/Total Input&Weight

1:	t	0.432	0.93	0.96
	p	0.766	0.98	0.99
	s	0.078	0.67	0.71
2:	u	0.564	0.96	0.97
	n	0.147	0.76	0.83
3:	x	0.273	0.89	0.92
	y	0.671	0.97	0.98
4:	a	0.602	0.95	0.98
	b	0.349	0.91	0.94

Cell	Total	App'ns	Expected	Error
tuyb	68	65	65.882	0.379
tuya	104	101	102.827	2.880
tuxb	32	27	27.244	0.015
tuxa	95	93	89.460	2.402
tnyb	10	9	8.052	0.573
tnya	14	14	12.893	1.202
tnxb	8	4	3.457	0.150
tnxa	12	5	8.184	3.897
suyb	1	0	0.777	3.484
suya	1	1	0.908	0.102
snyb	1	1	0.316	2.161
puyb	27	27	26.800	0.202
puya	16	16	15.958	0.042
puxb	16	15	15.376	0.236
puxa	17	17	16.759	0.245
pnyb	8	8	7.574	0.450
pnxb	2	1	1.532	0.790

variable B.Res(gi)

Total Chi-square = 19.2081
Chi-square/cell = 1.1299
Log likelihood = -81.735
Maximum possible likelihood = -71.531
Fit: X-square(12) = 20.407, accepted, p = 0.4822

Execution time: 0 min, 9.3 sec

• BINOMIAL VARBRUL • 16/5/00•14:01
Name of cell file: variable B.Cel(gi)

Using fast, less accurate method.
Averaging by weighting factors.
Threshold, step-up/down: 0.050001

Stepping Up...

----- Level # 0 -----

Run # 1, 1 cells:
Iterations: 1 2
Convergence at Iteration 2
Input 0.935
Log likelihood = -103.684

----- Level # 1 -----

Run # 2, 3 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.941
Group # 1 -- t: 0.444, p: 0.725, s: 0.112
Log likelihood = -100.938 Significance = 0.068

Run # 3, 2 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.949
Group # 2 -- u: 0.564, n: 0.148
Log likelihood = -93.139 Significance = 0.000

Run # 4, 2 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.945
Group # 3 -- x: 0.318, y: 0.635
Log likelihood = -98.433 Significance = 0.002

Run # 5, 2 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.939
Group # 4 -- a: 0.573, b: 0.391
Log likelihood = -101.907 Significance = 0.063

variable B.Res(gi)

Add Group # 2 with factors un

----- Level # 2 -----

Run # 6, 6 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.954

Group # 1 -- t: 0.443, p: 0.728, s: 0.142

Group # 2 -- u: 0.563, n: 0.149

Log likelihood = -90.742 Significance = 0.093

Maximum possible likelihood = -89.218

Fit: X-square(3) = 3.048, accepted, p = 0.3950

Run # 7, 4 cells:

Iterations: 1 2 3 4 5 6

Convergence at Iteration 6

Input 0.959

Group # 2 -- u: 0.568, n: 0.133

Group # 3 -- x: 0.299, y: 0.650

Log likelihood = -87.104 Significance = 0.001

Maximum possible likelihood = -82.326

Fit: X-square(2) = 9.557, rejected, p = 0.0093

Run # 8, 4 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.951

Group # 2 -- u: 0.561, n: 0.155

Group # 4 -- a: 0.557, b: 0.415

Log likelihood = -92.153 Significance = 0.169

Maximum possible likelihood = -90.400

Fit: X-square(2) = 3.507, accepted, p = 0.1793

Add Group # 3 with factors xy

----- Level # 3 -----

Run # 9, 10 cells:

Iterations: 1 2 3 4 5 6 7

Convergence at Iteration 7

Input 0.963

Group # 1 -- t: 0.450, p: 0.709, s: 0.066

Group # 2 -- u: 0.567, n: 0.138

Group # 3 -- x: 0.290, y: 0.658

Log likelihood = -84.484 Significance = 0.077

Maximum possible likelihood = -78.293

Fit: X-square(6) = 12.382, accepted, p = 0.0554

Run # 10, 8 cells:

Iterations: 1 2 3 4 5 6

Convergence at Iteration 6

Input 0.962

Group # 2 -- u: 0.565, n: 0.141

Group # 3 -- x: 0.283, y: 0.663

variable B.Res(gi)

Group # 4 -- a: 0.582, b: 0.378
Log likelihood = -85.208 Significance = 0.052
Maximum possible likelihood = -77.799
Fit: X-square(5) = 14.818, rejected, p = 0.0116

No remaining groups significant

Groups selected while stepping up: 2 3
Best stepping up run: #7

Stepping Down...

----- Level # 4 -----

Run # 11, 17 cells:
Iterations: 1 2 3 4 5 6 7
Convergence at Iteration 7
Input 0.967
Group # 1 -- t: 0.432, p: 0.766, s: 0.078
Group # 2 -- u: 0.564, n: 0.147
Group # 3 -- x: 0.273, y: 0.671
Group # 4 -- a: 0.602, b: 0.349
Log likelihood = -81.735
Maximum possible likelihood = -71.531
Fit: X-square(12) = 20.407, accepted, p = 0.4822

----- Level # 3 -----

Run # 12, 8 cells:
Iterations: 1 2 3 4 5 6
Convergence at Iteration 6
Input 0.962
Group # 2 -- u: 0.565, n: 0.141
Group # 3 -- x: 0.283, y: 0.663
Group # 4 -- a: 0.582, b: 0.378
Log likelihood = -85.208 Significance = 0.034
Maximum possible likelihood = -77.799
Fit: X-square(5) = 14.818, rejected, p = 0.0116

Run # 13, 10 cells:
Iterations: 1 2 3 4 5 6 7
Convergence at Iteration 7
Input 0.958
Group # 1 -- t: 0.430, p: 0.772, s: 0.060
Group # 3 -- x: 0.280, y: 0.665
Group # 4 -- a: 0.614, b: 0.334
Log likelihood = -91.219 Significance = 0.000
Maximum possible likelihood = -89.638
Fit: X-square(6) = 3.162, accepted, p = 0.7879

Run # 14, 10 cells:
Iterations: 1 2 3 4 5 6
Convergence at Iteration 6
Input 0.957

variable B.Res(gi)

Group # 1 -- t: 0.427, p: 0.773, s: 0.167
 Group # 2 -- u: 0.561, n: 0.155
 Group # 4 -- a: 0.579, b: 0.383
 Log likelihood = -88.952 Significance = 0.000
 Maximum possible likelihood = -85.013
 Fit: X-square(6) = 7.878, accepted, p = 0.2512

Run # 15, 10 cells:
 Iterations: 1 2 3 4 5 6 7
 Convergence at Iteration 7
 Input 0.963
 Group # 1 -- t: 0.450, p: 0.709, s: 0.066
 Group # 2 -- u: 0.567, n: 0.138
 Group # 3 -- x: 0.290, y: 0.658
 Log likelihood = -84.484 Significance = 0.019
 Maximum possible likelihood = -78.293
 Fit: X-square(6) = 12.382, accepted, p = 0.0554

All remaining groups significant

Groups eliminated while stepping down: None
 Best stepping up run: #7
 Best stepping down run: #11

Execution time: 0 min, 43.0 sec

- CROSS TABULATION • 16/5/00•14:03
- Cell file: variable B.Cel(gi)
- 27/8/56•14:00
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)

Group #1 -- horizontally.
 Group #2 -- vertically.

	t	%	p	%	s	%	Σ	%
u 1:	286	96:	75	99:	1	50	362	96
-:	13	4:	1	1:	1	50	15	4
Σ:	299	:	76	:	2		377	
n 1:	32	73:	9	90:	1	100	42	76
-:	12	27:	1	10:	0	0	13	24
Σ:	44	:	10	:	1		55	
Σ 1:	318	93:	84	98:	2	67	404	94
-:	25	7:	2	2:	1	33	28	6
Σ:	343	:	86	:	3		432	

- CROSS TABULATION • 16/5/00•14:03
- Cell file: variable B.Cel(gi)
- 27/8/56•14:00
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)

variable B.Res(gi)

Group #1 -- horizontally.

Group #3 -- vertically.

	t	%	p	%	s	%	Σ	%
x 1:	129	88:	33	94:	0	--	162	89
-:	18	12:	2	6:	0	--	20	11
Σ:	147	:	35	:	0		182	
y 1:	189	96:	51	100:	2	67	242	97
-:	7	4:	0	0:	1	33	8	3
Σ:	196	:	51	:	3		250	
Σ 1:	318	93:	84	98:	2	67	404	94
-:	25	7:	2	2:	1	33	28	6
Σ:	343	:	86	:	3		432	

- CROSS TABULATION • 16/5/00•14:03
- Cell file: variable B.Cel(gi)
- 27/8/56•14:00
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)

Group #1 -- horizontally.

Group #4 -- vertically.

	t	%	p	%	s	%	Σ	%
a 1:	213	95:	33	100:	1	100	247	95
-:	12	5:	0	0:	0	0	12	5
Σ:	225	:	33	:	1		259	
b 1:	105	89:	51	96:	1	50	157	91
-:	13	11:	2	4:	1	50	16	9
Σ:	118	:	53	:	2		173	
Σ 1:	318	93:	84	98:	2	67	404	94
-:	25	7:	2	2:	1	33	28	6
Σ:	343	:	86	:	3		432	

- CROSS TABULATION • 16/5/00•14:04
- Cell file: variable B.Cel(gi)
- 27/8/56•14:00
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)

Group #2 -- horizontally.

Group #3 -- vertically.

	u	%	n	%	Σ	%
x 1:	152	95:	10	45	162	89
-:	8	5:	12	55	20	11
Σ:	160	:	22		182	

variable B.Res(gi)

```

y 1: 210 97: 32 97| 242 97
-: 7 3: 1 3| 8 3
Σ: 217 : 33 | 250
+-----+
Σ 1: 362 96: 42 76| 404 94
-: 15 4: 13 24| 28 6
Σ: 377 : 55 | 432

```

- CROSS TABULATION • 16/5/00•14:04
- Cell file: variable B.Cel(gi)
- 13/5/00•14:00
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)

Group #2 -- horizontally.
Group #4 -- vertically.

```

      u  %      n  %      Σ  %
+ - - - - + - - - - + - - - -
a 1: 228 98: 19 73| 247 95
-: 5 2: 7 27| 12 5
Σ: 233 : 26 | 259
+ - - - - + - - - - + - - - -
b 1: 134 93: 23 79| 157 91
-: 10 7: 6 21| 16 9
Σ: 144 : 29 | 173
+-----+
Σ 1: 362 96: 42 76| 404 94
-: 15 4: 13 24| 28 6
Σ: 377 : 55 | 432

```

- CROSS TABULATION • 16/5/00•14:04
- Cell file: variable B.Cel(gi)
- 27/8/56•14:00
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)


Group #3 -- horizontally.
Group #4 -- vertically.

```


      x  %      y  %      Σ  %
+ - - - - + - - - - + - - - -
a 1: 115 93: 132 98| 247 95
-: 9 7: 3 21| 12 5
Σ: 124 : 135 | 259
+ - - - - + - - - - + - - - -
b 1: 47 81: 110 96| 157 91
-: 11 19: 5 41| 16 9
Σ: 58 : 115 | 173
+-----+
Σ 1: 162 89: 242 97| 404 94
-: 20 11: 8 31| 28 6
Σ: 182 : 250 | 432

```



Cross Tabulation

 "variable B.Cnd(gi).Cel"							
<ul style="list-style-type: none"> • 24/11/0•17:39 • Token file: variable B (gi) • Conditions: variable B.Cnd(gi) 							
Group #2 -- horizontally. Group #3 -- vertically.							
		u	%	n	%	Σ	%
x 1		152	95	10	45	162	89
-		8	5	12	55	20	11
Σ		160		22		182	
y 1		210	97	32	97	242	97
-		7	3	1	3	8	3
Σ		217		33		250	
Σ 1		362	96	42	76	404	94
-		15	4	13	24	28	6
Σ		377		55		432	

Cross Tabulation

 "variable A.Cel (prob)"							
<ul style="list-style-type: none"> • 22/4/00•13:17 • Token file: variable A • Conditions: variable A.Cnd 							
Group #1 -- horizontally. Group #2 -- vertically.							
		a	%	b	%	Σ	%
u 1		581	99	229	95	810	98
-		3	1	11	5	14	2
Σ		584		240		824	
n 1		32	91	44	77	76	83
-		3	9	13	23	16	17
Σ		35		57		92	
Σ 1		613	99	273	92	886	97
-		6	1	24	8	30	3
Σ		619		297		916	

Cross Tabulation




"variable B.Cnd(gi).Cel"

- 24/11/0•17:39
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)

Group #1 -- horizontally.
Group #2 -- vertically.

	t	%	p	%	s	%	Σ	%
u 1	286	96	75	99	1	50	362	96
-	13	4	1	1	1	50	15	4
Σ	299		76		2		377	
n 1	32	73	9	90	1	100	42	76
-	12	27	1	10	0	0	13	24
Σ	44		10		1		55	
Σ 1	318	93	84	98	2	67	404	94
-	25	7	2	2	1	33	28	6
Σ	343		86		3		432	

Cross Tabulation



"variable B.Cnd(gi).Cel"

- 24/11/0•17:39
- Token file: variable B (gi)
- Conditions: variable B.Cnd(gi)

Group #1 -- horizontally.
Group #3 -- vertically.

	t	%	p	%	s	%	Σ	%
x 1	129	88	33	94	0	--	162	89
-	18	12	2	6	0	--	20	11
Σ	147		35		0		182	
y 1	189	96	51	100	2	67	242	97
-	7	4	0	0	1	33	8	3
Σ	196		51		3		250	
Σ 1	318	93	84	98	2	67	404	94
-	25	7	2	2	1	33	28	6
Σ	343		86		3		432	

variable C.Res

• CELL CREATION • 25/5/00•13:13

Name of token file: variable C

Name of condition file: variable C.Cnd

(

(1)

(2)

(3)

(4)

)

Number of cells: 7

Application value(s): 1

Total no. of factors: 6

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	40	6	46	48
	%	87	13		
b	N	33	16	49	52
	%	67	33		
Total	N	73	22	95	
	%	77	23		

2 (3)					
x	N	71	18	89	94
	%	80	20		
y	N	2	4	6	6
	%	33	67		
Total	N	73	22	95	
	%	77	23		

3 (4)					
n	N	5	14	19	20
	%	26	74		
u	N	68	8	76	80
	%	89	11		
Total	N	73	22	95	
	%	77	23		

TOTAL	N	73	22	95	
	%	77	23		

Name of new cell file: variable C.Cel

• CROSS TABULATION • 25/5/00•13:13

• Cell file: variable C.Cel

• 27/8/56•13:13

• Token file: variable C

variable C.Res

• Conditions: variable C.Cnd

Group #1 -- horizontally.

Group #2 -- vertically.

	a	%	b	%	Σ	%
x 1:	40	93:	31	67	71	80
-:	3	7:	15	33	18	20
Σ:	43	:	46		89	
+-----+						
y 1:	0	0:	2	67	2	33
-:	3	100:	1	33	4	67
Σ:	3	:	3		6	
+-----+						
Σ 1:	40	87:	33	67	73	77
-:	6	13:	16	33	22	23
Σ:	46	:	49		95	

• CROSS TABULATION • 25/5/00•13:13

• Cell file: variable C.Cel.

• 25/5/00•13:13

• Token file: variable C

• Conditions: variable C.Cnd

Group #1 -- horizontally.

Group #3 -- vertically.

	a	%	b	%	Σ	%
n 1:	3	60:	2	14	5	26
-:	2	40:	12	86	14	74
Σ:	5	:	14		19	
+-----+						
u 1:	37	90:	31	89	68	89
-:	4	10:	4	11	8	11
Σ:	41	:	35		76	
+-----+						
Σ 1:	40	87:	33	67	73	77
-:	6	13:	16	33	22	23
Σ:	46	:	49		95	

• CROSS TABULATION • 25/5/00•13:13

• Cell file: variable C.Cel

• 27/8/56•13:13

• Token file: variable C

• Conditions: variable C.Cnd

Group #2 -- horizontally.

Group #3 -- vertically.

x	%	y	%	Σ	%
---	---	---	---	---	---

variable C.Res

	+	-	-	-	+	-	-	-	-
n 1:	5	28:	0	0	5	26			
-:	13	72:	1	100	14	74			
Σ:	18	:	1		19				
	+	-	-	-	+	-	-	-	-
u 1:	66	93:	2	40	68	89			
-:	5	7:	3	60	8	11			
Σ:	71	:	5		76				
	+	-	-	-	+	-	-	-	-
Σ 1:	71	80:	2	33	73	77			
-:	18	20:	4	67	22	23			
Σ:	89	:	6		95				

variable D (%).Res

• CELL CREATION • 25/5/00•13:23

Name of token file: variable D (%)

Name of condition file: variable D (%).Cnd

(

(1)

(2)

(3)

(4)

(5)

(6)

)

Number of cells: 27

Application value(s): 1

Total no. of factors: 10

Group		Apps	Non- apps	Total	%

1	(2)				
a	N	101	200	301	65
	%	34	66		
b	N	36	124	160	35
	%	23	78		
Total	N	137	324	461	
	%	30	70		

2	(3)				
u	N	121	286	407	88
	%	30	70		
n	N	16	38	54	12
	%	30	70		
Total	N	137	324	461	
	%	30	70		

3	(4)				
l	N	14	21	35	8
	%	40	60		
p	N	123	303	426	92
	%	29	71		
Total	N	137	324	461	
	%	30	70		

4	(5)				
s	N	113	260	373	81
	%	30	70		
r	N	24	64	88	19
	%	27	73		

variable D (%) .Res

Total N	137	324	461
%	30	70	
5 (6)			
i	N 95	203	298 65
	% 32	68	
e	N 42	121	163 35
	% 26	74	
Total N	137	324	461
%	30	70	
TOTAL N			
%	30	70	

Name of new cell file: variable D (%) .Cel

- CROSS TABULATION • 25/5/00•13:24
- Cell file: variable D (%) .Cel
- 27/8/56•13:23
- Token file: variable D (%)
- Conditions: variable D (%) .Cnd

Group #1 -- horizontally.
Group #2 -- vertically.

	a	%	b	%	Σ	%
u 1:	94	34:	27	21	121	30
-:	183	66:	103	79	286	70
Σ:	277	:	130		407	
n 1:	7	29:	9	30	16	30
-:	17	71:	21	70	38	70
Σ:	24	:	30		54	
Σ 1:	101	34:	36	23	137	30
-:	200	66:	124	78	324	70
Σ:	301	:	160		461	

- CROSS TABULATION • 25/5/00•13:24
- Cell file: variable D (%) .Cel
- 27/8/56•13:23
- Token file: variable D (%)
- Conditions: variable D (%) .Cnd

Group #1 -- horizontally.
Group #3 -- vertically.

	a	%	b	%	Σ	%
l 1:	8	42:	6	38	14	40
-:	11	58:	10	63	21	60
Σ:	19	:	16		35	

variable D (%).Res

	+	-	-	-	+	-	-	-	+	-	-	-
p 1:	93	33:	30	21	123	29						
-:	189	67:	114	79	303	71						
Σ:	282	:	144		426							
+-----+												
Σ 1:	101	34:	36	23	137	30						
-:	200	66:	124	78	324	70						
Σ:	301	:	160		461							

• CROSS TABULATION • 25/5/00•13:24
 • Cell file: variable D (%).Cel
 • 27/8/56•13:23
 • Token file: variable D (%)
 • Conditions: variable D (%).Cnd

Group #1 -- horizontally.
 Group #4 -- vertically.

	a	%	b	%	Σ	%
s 1:	81	33:	32	25	113	30
-:	162	67:	98	75	260	70
Σ:	243	:	130		373	
+-----+						
r 1:	20	34:	4	13	24	27
-:	38	66:	26	87	64	73
Σ:	58	:	30		88	
+-----+						
Σ 1:	101	34:	36	23	137	30
-:	200	66:	124	78	324	70
Σ:	301	:	160		461	

• CROSS TABULATION • 25/5/00•13:24
 • Cell file: variable D (%).Cel
 • 27/8/56•13:23
 • Token file: variable D (%)
 • Conditions: variable D (%).Cnd

Group #1 -- horizontally.
 Group #5 -- vertically.

	a	%	b	%	Σ	%
i 1:	67	35:	28	26	95	32
-:	122	65:	81	74	203	68
Σ:	189	:	109		298	
+-----+						
e 1:	34	30:	8	16	42	26
-:	78	70:	43	84	121	74
Σ:	112	:	51		163	
+-----+						
Σ 1:	101	34:	36	23	137	30
-:	200	66:	124	78	324	70
Σ:	301	:	160		461	

variable D (%)Res

• CROSS TABULATION • 25/5/00•13:24
 • Cell file: variable D (%).Cel
 • 27/8/56•13:23
 • Token file: variable D (%)
 • Conditions: variable D (%).Cnd

Group #2 -- horizontally.
 Group #3 -- vertically.

	u	%	n	%	Σ	%
l 1:	13	41:	1	33	14	40
-:	19	59:	2	67	21	60
Σ:	32	:	3		35	
p 1:	108	29:	15	29	123	29
-:	267	71:	36	71	303	71
Σ:	375	:	51		426	
Σ 1:	121	30:	16	30	137	30
-:	286	70:	38	70	324	70
Σ:	407	:	54		461	

• CROSS TABULATION • 25/5/00•13:24
 • Cell file: variable D (%).Cel
 • 27/8/56•13:23
 • Token file: variable D (%)
 • Conditions: variable D (%).Cnd

Group #2 -- horizontally.
 Group #4 -- vertically.

	u	%	n	%	Σ	%
s 1:	98	30:	15	35	113	30
-:	232	70:	28	65	260	70
Σ:	330	:	43		373	
r 1:	23	30:	1	9	24	27
-:	54	70:	10	91	64	73
Σ:	77	:	11		88	
Σ 1:	121	30:	16	30	137	30
-:	286	70:	38	70	324	70
Σ:	407	:	54		461	

• CROSS TABULATION • 25/5/00•13:25
 • Cell file: variable D (%).Cel
 • 27/8/56•13:23
 • Token file: variable D (%)
 • Conditions: variable D (%).Cnd

Group #2 -- horizontally.
 Group #5 -- vertically.

variable D (%) .Res

	u	%	n	%	Σ	%
i 1:	86	33:	9	25	95	32
-:	176	67:	27	75	203	68
Σ:	262	:	36		298	
e 1:	35	24:	7	39	42	26
-:	110	76:	11	61	121	74
Σ:	145	:	18		163	
Σ 1:	121	30:	16	30	137	30
-:	286	70:	38	70	324	70
Σ:	407	:	54		461	

- CROSS TABULATION • 25/5/00•13:25
- Cell file: variable D (%).Cel
- 27/8/56•13:23
- Token file: variable D (%)
- Conditions: variable D (%).Cnd

Group #3 -- horizontally.
 Group #4 -- vertically.

	l	%	p	%	Σ	%
s 1:	12	41:	101	29	113	30
-:	17	59:	243	71	260	70
Σ:	29	:	344		373	
r 1:	2	33:	22	27	24	27
-:	4	67:	60	73	64	73
Σ:	6	:	82		88	
Σ 1:	14	40:	123	29	137	30
-:	21	60:	303	71	324	70
Σ:	35	:	426		461	

- CROSS TABULATION • 25/5/00•13:25
- Cell file: variable D (%).Cel
- 27/8/56•13:23
- Token file: variable D (%)
- Conditions: variable D (%).Cnd

Group #3 -- horizontally.
 Group #5 -- vertically.

	l	%	p	%	Σ	%
i 1:	12	44:	83	31	95	32
-:	15	56:	188	69	203	68
Σ:	27	:	271		298	
e 1:	2	25:	40	26	42	26
-:	6	75:	115	74	121	74
Σ:	8	:	155		163	

variable D (%) .Res

```

+-----+-----+-----+
Σ 1:  14  40: 123  29| 137  30
-:  21  60: 303  71| 324  70
Σ:  35   :  426   |  461

```

• CROSS TABULATION • 25/5/00•13:25
 • Cell file: variable D (%).Cel
 • 27/8/56•13:23
 • Token file: variable D (%)
 • Conditions: variable D (%).Cnd

Group #4 -- horizontally.

Group #5 -- vertically.

```

      s  %      r  %      Σ  %
+---+---+---+---+---+---+
i 1:  77  31:  18  38|  95  32
-: 173  69:  30  63| 203  68
Σ: 250   :  48   | 298

```

```

+---+---+---+---+---+---+
e 1:  36  29:   6  15|  42  26
-:  87  71:  34  85| 121  74
Σ: 123   :  40   | 163

```

```

+-----+-----+-----+
Σ 1: 113  30:  24  27| 137  30
-: 260  70:  64  73| 324  70
Σ: 373   :  88   | 461

```

• BINOMIAL VARBRUL, 1 step • 25/5/00•14:22
 Name of cell file: variable D (%).Cel

Using fast, less accurate method.
 Averaging by weighting factors.
 One-level binomial analysis..

Run # 1, 27 cells:
 Iterations: 1 2 3 4 5
 Convergence at Iteration 5
 Input 0.292

Group Factor Weight App/Total Input&Weight

1:	a	0.553	0.34	0.34
	b	0.402	0.22	0.22
2:	u	0.496	0.30	0.29
	n	0.532	0.30	0.32
3:	l	0.622	0.40	0.40
	p	0.490	0.29	0.28
4:	s	0.506	0.30	0.30
	r	0.476	0.27	0.27

variable D (%).Res

5:	i	0.526	0.32	0.31
	e	0.452	0.26	0.25

Cell	Total	App'ns	Expected	Error
bupsi	66	13	15.118	0.385
bupse	28	5	5.059	0.001
bupri	12	3	2.506	0.123
bupre	10	0	1.638	1.959
bulsi	10	5	3.377	1.177
bulse	2	1	0.549	0.510
bulri	1	0	0.312	0.453
bulre	1	0	0.252	0.336
bnpsi	16	6	4.087	1.202
bnpse	6	2	1.218	0.630
bnpri	3	1	0.701	0.167
bnpre	3	0	0.554	0.679
bnlsi	1	0	0.371	0.589
bnlse	1	0	0.304	0.437
aupsi	132	46	46.692	0.016
aupse	78	23	22.533	0.014
aupri	27	13	8.834	2.920
aupre	22	5	5.834	0.162
aulsi	12	5	5.812	0.220
aulse	2	0	0.822	1.394
aulri	2	1	0.910	0.016
aulre	2	1	0.765	0.117
anpsi	12	1	4.647	4.672
anpse	6	5	1.916	7.294
anpri	3	0	1.079	1.685
anpre	2	0	0.588	0.834
anlsi	1	1	0.520	0.922

Total Chi-square = 28.9149
 Chi-square/cell = 1.0709
 Log likelihood = -274.981
 Maximum possible likelihood = -257.463
 Fit: X-square(22) = 35.037, accepted, p = 0.0793

Execution time: 0 min, 9.1 sec

• BINOMIAL VARBRUL • 25/5/00•14:23
 Name of cell file: variable D (%).Cel

Using fast, less accurate method.
 Averaging by weighting factors.
 Threshold, step-up/down: 0.050001

Stepping Up...

----- Level # 0 -----

Run # 1, 1 cells:
 Iterations: 1 2
 Convergence at Iteration 2
 Input 0.297
 Log likelihood = -280.489

variable D (%).Res

----- Level # 1 -----

Run # 2, 2 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.294

Group # 1 -- a: 0.548, b: 0.411

Log likelihood = -277.350 Significance = 0.013

Run # 3, 2 cells:

Iterations: 1 2

Convergence at Iteration 2

Input 0.297

Group # 2 -- u: 0.500, n: 0.499

*** Warning, negative change in likelihood (-0.00323486) replaced by

Log likelihood = -280.491 Significance = 1.000

Run # 4, 2 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.297

Group # 3 -- l: 0.612, p: 0.491

Log likelihood = -279.595 Significance = 0.186

Run # 5, 2 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.297

Group # 4 -- s: 0.507, r: 0.470

Log likelihood = -280.329 Significance = 0.587

Run # 6, 2 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.296

Group # 5 -- i: 0.526, e: 0.452

Log likelihood = -279.542 Significance = 0.176

Add Group # 1 with factors ab

----- Level # 2 -----

Run # 7, 4 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.294

Group # 1 -- a: 0.549, b: 0.409

Group # 2 -- u: 0.496, n: 0.528

Log likelihood = -277.278 Significance = 0.704

Maximum possible likelihood = -276.675

Fit: X-square(2) = 1.205, accepted, p = 0.5537

Run # 8, 4 cells:

Iterations: 1 2 3 4

variable D (%).Res

Convergence at Iteration 4

Input 0.293

Group # 1 -- a: 0.550, b: 0.407

Group # 3 -- l: 0.629, p: 0.489

Log likelihood = -276.175 Significance = 0.133

Maximum possible likelihood = -276.003

Fit: X-square(2) = 0.343, accepted, p = 0.8439

Run # 9, 4 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.294

Group # 1 -- a: 0.548, b: 0.411

Group # 4 -- s: 0.507, r: 0.469

Log likelihood = -277.179 Significance = 0.573

Maximum possible likelihood = -276.365

Fit: X-square(2) = 1.628, accepted, p = 0.4527

Run # 10, 4 cells:

Iterations: 1 2 3 4

Convergence at Iteration 4

Input 0.293

Group # 1 -- a: 0.549, b: 0.408

Group # 5 -- i: 0.529, e: 0.447

Log likelihood = -276.188 Significance = 0.136

Maximum possible likelihood = -275.898

Fit: X-square(2) = 0.580, accepted, p = 0.7500

No remaining groups significant

Groups selected while stepping up: 1

Best stepping up run: #2

Stepping Down...

----- Level # 5 -----

Run # 11, 27 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.292

Group # 1 -- a: 0.553, b: 0.402

Group # 2 -- u: 0.496, n: 0.532

Group # 3 -- l: 0.622, p: 0.490

Group # 4 -- s: 0.506, r: 0.476

Group # 5 -- i: 0.526, e: 0.452

Log likelihood = -274.981

Maximum possible likelihood = -257.463

Fit: X-square(22) = 35.037, accepted, p = 0.0793

----- Level # 4 -----

Run # 12, 14 cells:

Iterations: 1 2 3 4

variable D (%).Res

Convergence at Iteration 4

Input 0.296

Group # 2 -- u: 0.500, n: 0.500

Group # 3 -- l: 0.604, p: 0.491

Group # 4 -- s: 0.505, r: 0.477

Group # 5 -- i: 0.524, e: 0.457

Log likelihood = -278.674 Significance = 0.008

Maximum possible likelihood = -271.292

Fit: X-square(10) = 14.765, accepted, p = 0.7374

Run # 13, 16 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.292

Group # 1 -- a: 0.551, b: 0.404

Group # 3 -- l: 0.621, p: 0.490

Group # 4 -- s: 0.506, r: 0.476

Group # 5 -- i: 0.526, e: 0.452

Log likelihood = -275.079 Significance = 0.670

Maximum possible likelihood = -268.834

Fit: X-square(12) = 12.489, accepted, p = 0.8235

Run # 14, 16 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.293

Group # 1 -- a: 0.551, b: 0.406

Group # 2 -- u: 0.496, n: 0.527

Group # 4 -- s: 0.506, r: 0.476

Group # 5 -- i: 0.528, e: 0.448

Log likelihood = -276.022 Significance = 0.159

Maximum possible likelihood = -264.227

Fit: X-square(12) = 23.590, accepted, p = 0.3491

Run # 15, 15 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.292

Group # 1 -- a: 0.553, b: 0.402

Group # 2 -- u: 0.496, n: 0.531

Group # 3 -- l: 0.622, p: 0.490

Group # 5 -- i: 0.527, e: 0.450

Log likelihood = -275.077 Significance = 0.672

Maximum possible likelihood = -266.072

Fit: X-square(11) = 18.011, accepted, p = 0.5895

Run # 16, 14 cells:

Iterations: 1 2 3 4 5

Convergence at Iteration 5

Input 0.293

Group # 1 -- a: 0.551, b: 0.404

Group # 2 -- u: 0.496, n: 0.533

Group # 3 -- l: 0.630, p: 0.489

Group # 4 -- s: 0.507, r: 0.470

Log likelihood = -275.907 Significance = 0.180

variable D (%).Res

Maximum possible likelihood = -268.649
Fit: X-square(10) = 14.516, accepted, p = 0.7475

Cut Group # 4 with factors sr

----- Level # 3 -----

Run # 17, 8 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.296
Group # 2 -- u: 0.500, n: 0.500
Group # 3 -- l: 0.605, p: 0.491
Group # 5 -- i: 0.524, e: 0.455
Log likelihood = -278.759 Significance = 0.008
Maximum possible likelihood = -276.629
Fit: X-square(5) = 4.262, accepted, p = 0.5132

Run # 18, 8 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.292
Group # 1 -- a: 0.551, b: 0.404
Group # 3 -- l: 0.621, p: 0.490
Group # 5 -- i: 0.527, e: 0.450
Log likelihood = -275.171 Significance = 0.675
Maximum possible likelihood = -274.485
Fit: X-square(5) = 1.371, accepted, p = 0.9257

Run # 19, 8 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.293
Group # 1 -- a: 0.551, b: 0.406
Group # 2 -- u: 0.496, n: 0.527
Group # 5 -- i: 0.529, e: 0.447
Log likelihood = -276.119 Significance = 0.159
Maximum possible likelihood = -271.037
Fit: X-square(5) = 10.163, accepted, p = 0.0747

Run # 20, 8 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.293
Group # 1 -- a: 0.551, b: 0.404
Group # 2 -- u: 0.496, n: 0.532
Group # 3 -- l: 0.630, p: 0.489
Log likelihood = -276.071 Significance = 0.167
Maximum possible likelihood = -272.551
Fit: X-square(5) = 7.040, accepted, p = 0.2203

Cut Group # 2 with factors un

----- Level # 2 -----

variable D (%).Res

Run # 21, 4 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.296
Group # 3 -- l: 0.605, p: 0.491
Group # 5 -- i: 0.524, e: 0.455
Log likelihood = -278.759 Significance = 0.009
Maximum possible likelihood = -278.515
Fit: X-square(2) = 0.490, accepted, p = 0.7836

Run # 22, 4 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.293
Group # 1 -- a: 0.549, b: 0.408
Group # 5 -- i: 0.529, e: 0.447
Log likelihood = -276.188 Significance = 0.163
Maximum possible likelihood = -275.898
Fit: X-square(2) = 0.580, accepted, p = 0.7500

Run # 23, 4 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.293
Group # 1 -- a: 0.550, b: 0.407
Group # 3 -- l: 0.629, p: 0.489
Log likelihood = -276.175 Significance = 0.166
Maximum possible likelihood = -276.003
Fit: X-square(2) = 0.343, accepted, p = 0.8439

Cut Group # 5 with factors ie

----- Level # 1 -----

Run # 24, 2 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.297
Group # 3 -- l: 0.612, p: 0.491
Log likelihood = -279.595 Significance = 0.010

Run # 25, 2 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.294
Group # 1 -- a: 0.548, b: 0.411
Log likelihood = -277.350 Significance = 0.133

Cut Group # 3 with factors lp

----- Level # 0 -----

Run # 26, 1 cells:
Iterations: 1 2
Convergence at Iteration 2

variable D (%).Res

Input 0.297

Log likelihood = -280.489 Significance = 0.013

All remaining groups significant

Groups eliminated while stepping down: 4 2 5 3

Best stepping up run: #2

Best stepping down run: #25

Execution time: 0 min, 55.8 sec



"variable D.Cel"

- 27/8/56•12:49
- Token file: variable D
- Conditions: variable D.Cnd

Group #1 -- horizontally.
Group #2 -- vertically.

	a	%	b	%	Σ	%
m 1	77	31	21	18	98	27
-	168	69	96	82	264	73
Σ	245		117		362	
g 1	7	29	9	30	16	30
-	17	71	21	70	38	70
Σ	24		30		54	
j 1	17	53	6	46	23	51
-	15	47	7	54	22	49
Σ	32		13		45	
Σ 1	101	34	36	23	137	30
-	200	66	124	78	324	70
Σ	301		160		461	

variable D.Res

• CELL CREATION • 27/5/00•12:49

Name of token file: variable D
 Name of condition file: variable D.Cnd
 (
 (1)
 (2)
 (3)
)

Number of cells: 6
 Application value(s): 1
 Total no. of factors: 5

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	101	200	301	65
	%	34	66		
b	N	36	124	160	35
	%	23	78		
Total	N	137	324	461	
	%	30	70		

2 (3)					
m	N	98	264	362	79
	%	27	73		
g	N	16	38	54	12
	%	30	70		
j	N	23	22	45	10
	%	51	49		
Total	N	137	324	461	
	%	30	70		

TOTAL	N	137	324	461	
	%	30	70		

Name of new cell file: variable D.Cel

• CROSS TABULATION • 27/5/00•12:50

• Cell file: variable D.Cel
 • 27/5/00•12:49
 • Token file: variable D
 • Conditions: variable D.Cnd

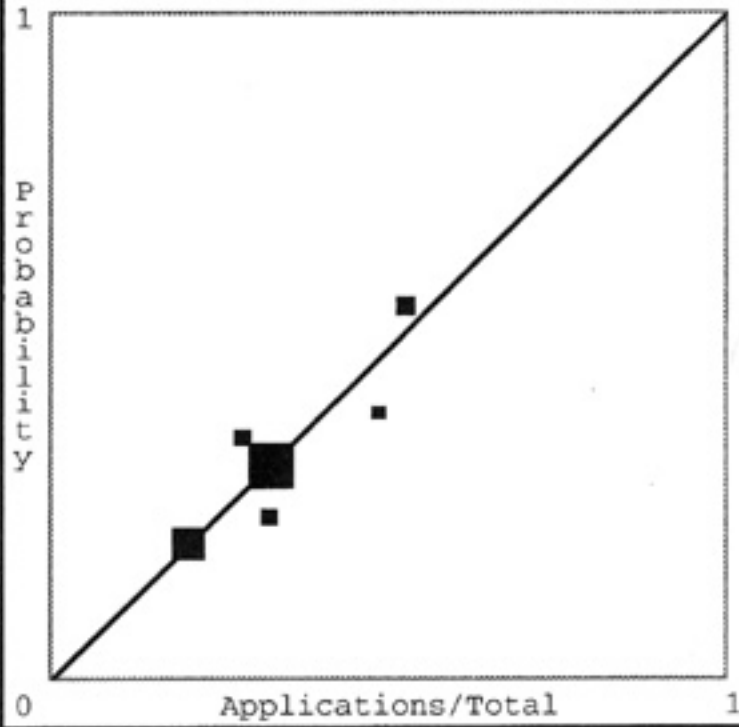
Group #1 -- horizontally.
 Group #2 -- vertically.

	a	%	b	%	Σ	%
m 1:	77	31:	21	18	98	27



"variable D.Cel"

- 27/8/56•12:49
- Token file: variable D
- Conditions: variable D.Cnd



variable D.Res

• CELL CREATION • 27/5/00•12:49

Name of token file: variable D
 Name of condition file: variable D.Cnd
 (
 (1)
 (2)
 (3)
)

Number of cells: 6
 Application value(s): 1
 Total no. of factors: 5

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	101	200	301	65
	%	34	66		
b	N	36	124	160	35
	%	23	78		
Total	N	137	324	461	
	%	30	70		

2 (3)					
m	N	98	264	362	79
	%	27	73		
g	N	16	38	54	12
	%	30	70		
j	N	23	22	45	10
	%	51	49		
Total	N	137	324	461	
	%	30	70		

TOTAL	N	137	324	461	
	%	30	70		

Name of new cell file: variable D.Cel

• CROSS TABULATION • 27/5/00•12:50

• Cell file: variable D.Cel
 • 27/5/00•12:49
 • Token file: variable D
 • Conditions: variable D.Cnd

Group #1 -- horizontally.
 Group #2 -- vertically.

	a	%	b	%	Σ	%
m 1:	77	31:	21	18	98	27

variable D.Res

```

-: 168 69: 96 82| 264 73
Σ: 245 : 117 | 362
+ - - - - + - - - - + - - - -
g 1: 7 29: 9 30| 16 30
-: 17 71: 21 70| 38 70
Σ: 24 : 30 | 54
+ - - - - + - - - -
j 1: 17 53: 6 46| 23 51
-: 15 47: 7 54| 22 49
Σ: 32 : 13 | 45
+-----+-----+-----
Σ 1: 101 34: 36 23| 137 30
-: 200 66: 124 78| 324 70
Σ: 301 : 160 | 461

```

• BINOMIAL VARBRUL, 1 step • 27/5/00•12:50
Name of cell file: variable D.Cel

Using fast, less accurate method.
Averaging by weighting factors.
One-level binomial analysis...

Run # 1, 6 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.291

Group Factor Weight App/Total Input&Weight

```

1:  a    0.549    0.34    0.33
    b    0.409    0.22    0.22

2:  m    0.467    0.27    0.26
    g    0.531    0.30    0.32
    j    0.711    0.51    0.50

```

Cell	Total	App'ns	Expected	Error
bm	117	21	23.380	0.303
bj	13	6	5.352	0.133
bg	30	9	7.318	0.511
am	245	77	74.641	0.107
aj	32	17	17.634	0.051
ag	24	7	8.674	0.506

Total Chi-square = 1.6115
Chi-square/cell = 0.2686
Log likelihood = -272.275
Maximum possible likelihood = -271.475
Fit: X-square(3) = 1.600, accepted, p = 0.6626

Execution time: 0 min, 5.3 sec

• BINOMIAL VARBRUL • 27/5/00•12:50
Name of cell file: variable D.Cel

Using fast, less accurate method.

variable D.Res

Averaging by weighting factors.
Threshold, step-up/down: 0.050001

Stepping Up..

----- Level # 0 -----

Run # 1, 1 cells:
Iterations: 1 2
Convergence at Iteration 2
Input 0.297
Log likelihood = -280.489

----- Level # 1 -----

Run # 2, 2 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.294
Group # 1 -- a: 0.548, b: 0.411
Log likelihood = -277.350 Significance = 0.013

Run # 3, 3 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.294
Group # 2 -- m: 0.471, g: 0.503, j: 0.715
Log likelihood = -275.393 Significance = 0.008

Add Group # 2 with factors mgj

----- Level # 2 -----

Run # 4, 6 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.291
Group # 1 -- a: 0.549, b: 0.409
Group # 2 -- m: 0.467, g: 0.531, j: 0.711
Log likelihood = -272.275 Significance = 0.013
Maximum possible likelihood = -271.475
Fit: X-square(3) = 1.600, accepted, p = 0.6626

Add Group # 1 with factors ab
Best stepping up run: #4

Stepping Down..

----- Level # 2 -----

Run # 5, 6 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.291

variable D.Res

Group # 1 -- a: 0.549, b: 0.409
Group # 2 -- m: 0.467, g: 0.531, j: 0.711
Log likelihood = -272.275
Maximum possible likelihood = -271.475
Fit: X-square(3) = 1.600, accepted, p = 0.6626

----- Level # 1 -----

Run # 6, 3 cells:
Iterations: 1 2 3 4 5
Convergence at Iteration 5
Input 0.294
Group # 2 -- m: 0.471, g: 0.503, j: 0.715
Log likelihood = -275.393 Significance = 0.013

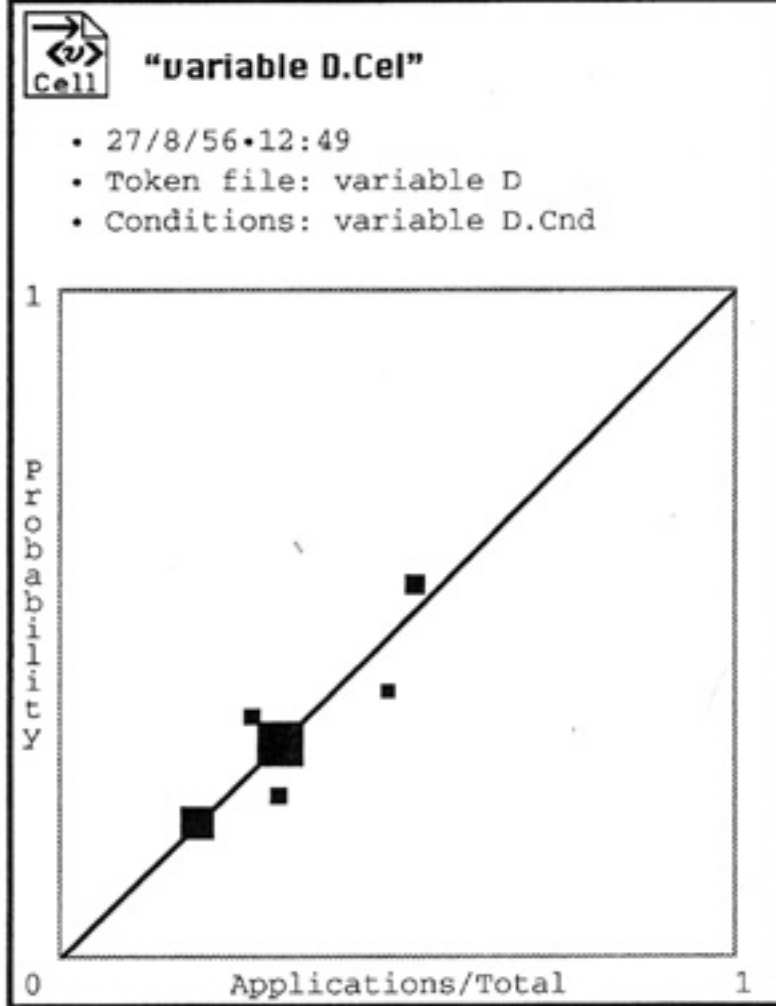
Run # 7, 2 cells:
Iterations: 1 2 3 4
Convergence at Iteration 4
Input 0.294
Group # 1 -- a: 0.548, b: 0.411
Log likelihood = -277.350 Significance = 0.008

All remaining groups significant

Groups eliminated while stepping down: None
Best stepping up run: #4
Best stepping down run: #5

Execution time: 0 min, 14.2 sec

Scattergram



variable E.Res

• CELL CREATION • 7/6/00•15:37

Name of token file: variable E

Name of condition file: variable E.Cnd

(
(1)
(2)
(3)
(4)
(5)
)

Number of cells: 9
Application value(s): 1
Total no. of factors: 9

Group		Apps	Non- apps	Total	%

1 (2)					
a	N	45	18	63	77
	%	71	29		
b	N	6	13	19	23
	%	32	68		
Total	N	51	31	82	
	%	62	38		

2 (3)					
m	N	45	27	72	88
	%	63	38		
j	N	5	2	7	9
	%	71	29		
g	N	1	2	3	4
	%	33	67		
Total	N	51	31	82	
	%	62	38		

3 (4)					
u	N	50	29	79	96
	%	63	37		
n	N	1	2	3	4
	%	33	67		
Total	N	51	31	82	
	%	62	38		

4 (5)					
s	N	47	27	74	90
	%	64	36		
p	N	4	4	8	10

variable E.Res

```

      %      50      50
Total N      51      31      82
      %      62      38

```

```

TOTAL N      51      31      82
      %      62      38

```

Name of new cell file: variable E.Cel

- CROSS TABULATION • 7/6/00•16:29
- Cell file: variable E.Cel
- 7/6/00•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #1 -- horizontally.

Group #2 -- vertically.

	a	%	b	%	Σ	%
m 1:	39	70:	6	38	45	63
-:	17	30:	10	63	27	38
Σ:	56	:	16		72	
j 1:	5	83:	0	0	5	71
-:	1	17:	1	100	2	29
Σ:	6	:	1		7	
g 1:	1	100:	0	0	1	33
-:	0	0:	2	100	2	67
Σ:	1	:	2		3	
Σ 1:	45	71:	6	32	51	62
-:	18	29:	13	68	31	38
Σ:	63	:	19		82	

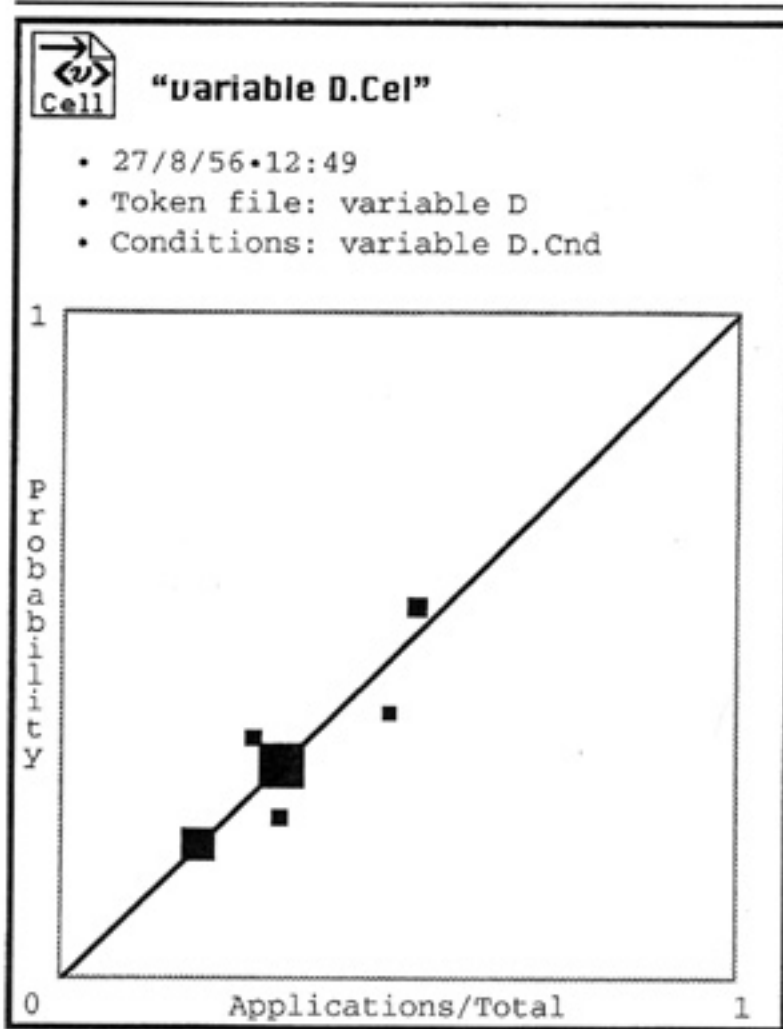
- CROSS TABULATION • 7/6/00•16:29
- Cell file: variable E.Cel
- 7/6/00•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #1 -- horizontally.

Group #3 -- vertically.

	a	%	b	%	Σ	%
u 1:	44	71:	6	35	50	63
-:	18	29:	11	65	29	37
Σ:	62	:	17		79	
n 1:	1	100:	0	0	1	33
-:	0	0:	2	100	2	67
Σ:	1	:	2		3	

Scattergram



variable E.Res

```

+-----+-----+
Σ 1:  45  71:   6  32|  51  62
   -:  18  29:  13  68|  31  38
   Σ:   63   :   19   |   82

```

- CROSS TABULATION • 7/6/00•16:29
- Cell file: variable E.Cel
- 7/6/00•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #1 -- horizontally.
 Group #4 -- vertically.

```

      a  %      b  %      Σ  %
+---+---+---+---+---+---+
s 1:  41  73:   6  33|  47  64
   -:  15  27:  12  67|  27  36
   Σ:   56   :   18   |   74
+---+---+---+---+---+---+
p 1:   4  57:   0   0|   4  50
   -:   3  43:   1 100|   4  50
   Σ:    7   :    1   |    8
+-----+-----+
Σ 1:  45  71:   6  32|  51  62
   -:  18  29:  13  68|  31  38
   Σ:   63   :   19   |   82

```

- CROSS TABULATION • 7/6/00•16:29
- Cell file: variable E.Cel
- 7/6/00•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #2 -- horizontally.
 Group #3 -- vertically.

```

      m  %      j  %      g  %      Σ  %
+---+---+---+---+---+---+---+
u 1:  45  63:   5  71:   0  --|  50  63
   -:  27  38:   2  29:   0  --|  29  37
   Σ:   72   :    7   :    0   |  79
+---+---+---+---+---+---+
n 1:   0  --:   0  --:   1  33|   1  33
   -:   0  --:   0  --:   2  67|   2  67
   Σ:   0   :    0   :    3   |    3
+-----+-----+
Σ 1:  45  63:   5  71:   1  33|  51  62
   -:  27  38:   2  29:   2  67|  31  38
   Σ:   72   :    7   :    3   |   82

```

- CROSS TABULATION • 7/6/00•16:29
- Cell file: variable E.Cel
- 7/6/00•16:28
- Token file: variable E

variable E.Res

• Conditions: variable E.Cnd

Group #2 -- horizontally.

Group #4 -- vertically.

	m	%	j	%	g	%	Σ	%
s 1:	41	63:	5	83:	1	33	47	64
-:	24	37:	1	17:	2	67	27	36
Σ:	65	:	6	:	3		74	
+-----+								
p 1:	4	57:	0	0:	0	--	4	50
-:	3	43:	1	100:	0	--	4	50
Σ:	7	:	1	:	0		8	
+-----+								
Σ 1:	45	63:	5	71:	1	33	51	62
-:	27	38:	2	29:	2	67	31	38
Σ:	72	:	7	:	3		82	

- CROSS TABULATION • 7/6/00•16:29
- Cell file: variable E.Cel
- 7/6/00•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #3 -- horizontally.

Group #4 -- vertically.

	u	%	n	%	Σ	%
s 1:	46	65:	1	33	47	64
-:	25	35:	2	67	27	36
Σ:	71	:	3		74	
+-----+						
p 1:	4	50:	0	--	4	50
-:	4	50:	0	--	4	50
Σ:	8	:	0		8	
+-----+						
Σ 1:	50	63:	1	33	51	62
-:	29	37:	2	67	31	38
Σ:	79	:	3		82	

Cross Tabulation



"variable E.Cel"

- 27/8/56•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #1 -- horizontally.

Group #2 -- vertically.

		a	%	b	%	Σ	%
m	1	39	70	6	38	45	63
	-	17	30	10	63	27	38
	Σ	56		16		72	
j	1	5	83	0	0	5	71
	-	1	17	1	100	2	29
	Σ	6		1		7	
g	1	1	100	0	0	1	33
	-	0	0	2	100	2	67
	Σ	1		2		3	
Σ	1	45	71	6	32	51	62
	-	18	29	13	68	31	38
	Σ	63		19		82	

Cross Tabulation



"variable E.Cel"

- 27/8/56•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #1 -- horizontally.

Group #3 -- vertically.

	a	%	b	%	Σ	%
u 1	44	71	6	35	50	63
-	18	29	11	65	29	37
Σ	62		17		79	
n 1	1	100	0	0	1	33
-	0	0	2	100	2	67
Σ	1		2		3	
Σ 1	45	71	6	32	51	62
-	18	29	13	68	31	38
Σ	63		19		82	

Cross Tabulation



"variable E.Cel"

- 27/8/56•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #1 -- horizontally.

Group #4 -- vertically.

	a	%	b	%	Σ	%
s 1	41	73	6	33	47	64
-	15	27	12	67	27	36
Σ	56		18		74	
p 1	4	57	0	0	4	50
-	3	43	1	100	4	50
Σ	7		1		8	
Σ 1	45	71	6	32	51	62
-	18	29	13	68	31	38
Σ	63		19		82	

Cross Tabulation



"variable E.Cel"

- 27/8/56•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #2 -- horizontally.

Group #3 -- vertically.

	m	%	j	%	g	%	Σ	%
u 1	45	63	5	71	0	--	50	63
-	27	38	2	29	0	--	29	37
Σ	72		7		0		79	
n 1	0	--	0	--	1	33	1	33
-	0	--	0	--	2	67	2	67
Σ	0		0		3		3	
Σ 1	45	63	5	71	1	33	51	62
-	27	38	2	29	2	67	31	38
Σ	72		7		3		82	

Cross Tabulation



"variable E.Cel"

- 27/8/56•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #2 -- horizontally.

Group #4 -- vertically.

	m	%	j	%	g	%	Σ	%
s 1	41	63	5	83	1	33	47	64
-	24	37	1	17	2	67	27	36
Σ	65		6		3		74	
p 1	4	57	0	0	0	--	4	50
-	3	43	1	100	0	--	4	50
Σ	7		1		0		8	
Σ 1	45	63	5	71	1	33	51	62
-	27	38	2	29	2	67	31	38
Σ	72		7		3		82	

Cross Tabulation



"variable E.Cel"

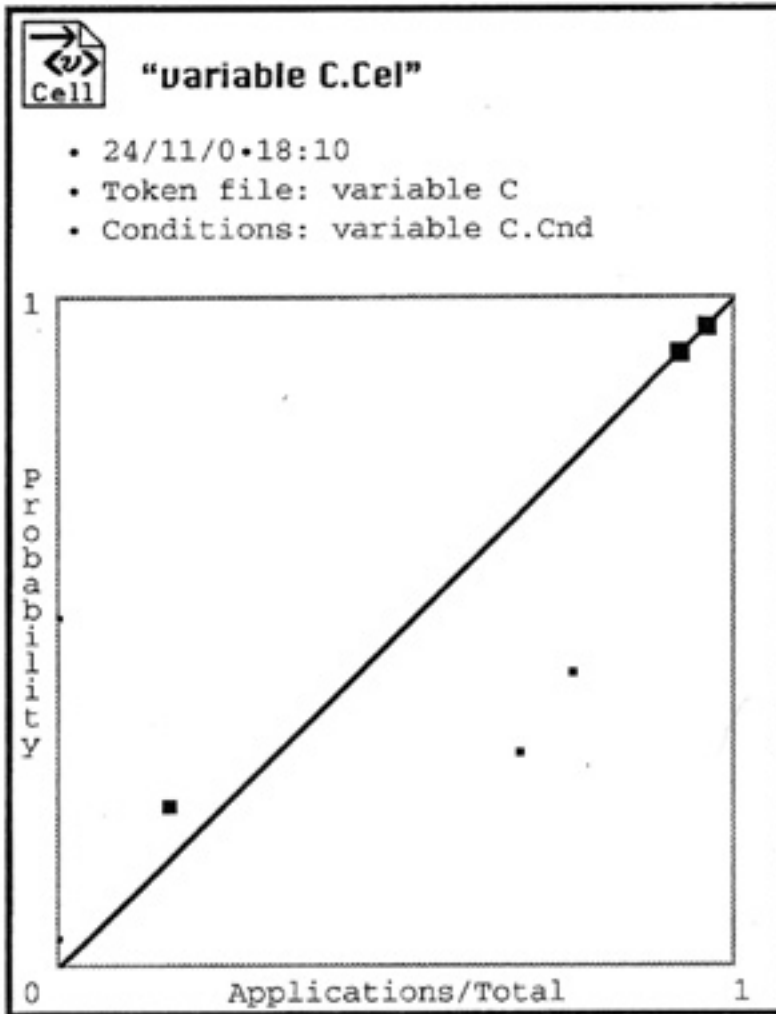
- 27/8/56•16:28
- Token file: variable E
- Conditions: variable E.Cnd

Group #3 -- horizontally.

Group #4 -- vertically.

	u	%	n	%	Σ	%
s 1	46	65	1	33	47	64
-	25	35	2	67	27	36
Σ	71		3		74	
p 1	4	50	0	--	4	50
-	4	50	0	--	4	50
Σ	8		0		8	
Σ 1	50	63	1	33	51	62
-	29	37	2	67	31	38
Σ	79		3		82	

Scattergram



ÍNDIX

<u>0. INTRODUCCIÓ</u>	15
<u>1. MARC TEÒRIC</u>	21
1.1 La sociolingüística i els estudis sobre variació i canvi lingüístics	21
1.1.1 Aproximació a les principals línies de recerca de la sociolingüística catalana actual	42
1.1.2 Els estudis sobre contacte de varietats	52
<u>2. LA COMUNITAT DE PARLA I LA SITUACIÓ COMUNICATIVA</u>	75
2.1 La comunitat de parla	75
2.1.1 Marc territorial, econòmic i demogràfic	76
2.1.2 Aspectes socials	87
2.1.3 Marc lingüístic	92
2.1.3.1 Orígens de la llengua catalana a la Conca de Tremp	92
2.1.3.2 Assaig de caracterització de la parla de la Conca de Tremp	94
2.2 La situació comunicativa	115
2.2.1 Aspectes administratius de la sessió plenària municipal	116
2.2.2 Aspectes discursius de la sessió plenària municipal	123
2.2.3 Aspectes situacionals de la sessió plenària municipal	132

<u>3. METODOLOGIA</u>	<u>147</u>
3.1 Introducció	147
3.2 Caracterització del corpus d'estudi	156
3.3 Selecció dels informants	161
3.4 Recollida de dades	164
3.5 Tractament de dades	166
3.5.1 Criteris de transcripció	166
3.5.2 Preparació de les dades	174
3.5.3 Processament de les dades	178
<u>4. VARIABLES LINGÜÍSTIQUES I</u>	
<u>VARIABLES EXPLICATIVES</u>	<u>189</u>
4.1 Formulació i caracterització de les variables lingüístiques	189
4.1.1 Variable A: Pèrdua de la forma plena singular i plural de l'article definit masculí	192
4.1.2 Variable B: Pèrdua de formes pronominals plenes singulars	207
4.1.3 Variable C: Pèrdua de la forma pronominal plena analògica de la primera persona del plural	217
4.1.4 Variable D: Pèrdua de les variants sonoritzades de l'adjectiu demostratiu	221
4.1.5 Variable E: Pèrdua de les formes femenines plenes en <i>u</i> dels adjectius possessius d'un sol posseïdor	227
4.2 Formulació i caracterització de les variables explicatives	230
4.2.1 Estil de parla	233
4.2.2 Edat	247
4.2.3 Grau d'instrucció i de coneixement de català escrit	251
4.2.4 Factors explicatius de tipus lingüístic	254

<u>5. DESCRIPCIÓ I ANÀLISI DE RESULTATS</u>	<u>259</u>
5.1 L'article definit masculí	261
5.2 Els pronoms febles singulars de CD i CI	279
5.3 El pronom feble de primera persona del plural	296
5.4 L'adjectiu demostratiu	306
5.5 L'adjectiu possessiu femení d'un sol posseïdor	321
5.6 Recapitulació	327
<u>6. CONCLUSIONS</u>	<u>337</u>

7. BIBLIOGRAFIA

8. ÍNDEX DE TAULES, GRÀFICS I IL·LUSTRACIONS

ANNEXOS

Annex I: Dades dels informants

Annex II: Magatzem de dades

Annex III: Transcripció del corpus

Annex IV: Resultats de l'anàlisi quantitativa