LEADER PROJECT

OSPEDALE DI LECCO

THE UNIVERSITY OF ADELAIDE
AUSTRALIA

- *Lecco*
- *ADelaide*
- *Evaluation*
- *Research*
- *PROJECT*

Dedicated to Frances Tustin

On the 4th April 1994, a wonderful and sunny spring day of Easter week, I met Frances Tustin, a famous psychoanalyst, in London to discuss some papers which had been refused by a psychoanalytic journal. Despite this rejection, she encouraged me, in a very affectionate and helpful way, to continue with my interests in connecting sciences and psychoanalysis. She persisted saying that a lot of work was needed toward an interdisciplinary attitude and interaction with other sciences. She pointed out that in order to work with serious mental disorders, like psychosis or autism, an uncommonly open mind was required.

She encouraged me to carry on with the meetings and exchanges with the 'scientific' disciplines, which can help us undertake a more rigorous approach to the understanding and knowledge of the psychotherapeutic process. She underlined that scientific fields could offer psychoanalysis richer and more versatile models to interpret psychic reality. She really and firmly believed that psychoanalysis has to meet natural science.

Target

The TARGET of this research is to *bring back* to the area of quantitative sciences that part of the mental health sector, related to psychotherapy and reabilitation activities, which still today cannot be verified with measurable quantities.

The AIM of the research is to create a parallel *tool*, easily applicable, which, alongside the traditional qualitative method for understanding the experience of the patient, gives a quantitative method for the knowledge of the changes that occur in time on interacting variables.
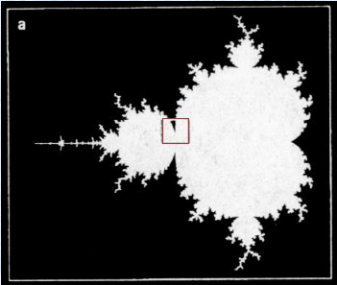
Non - Linearity

The CULTURAL and SCIENTIFIC BASIS is given by modern *non-linear* sciences, that is from the possibility of monitoring, analysing and comparing *three or more interacting variables that evolve in time.*
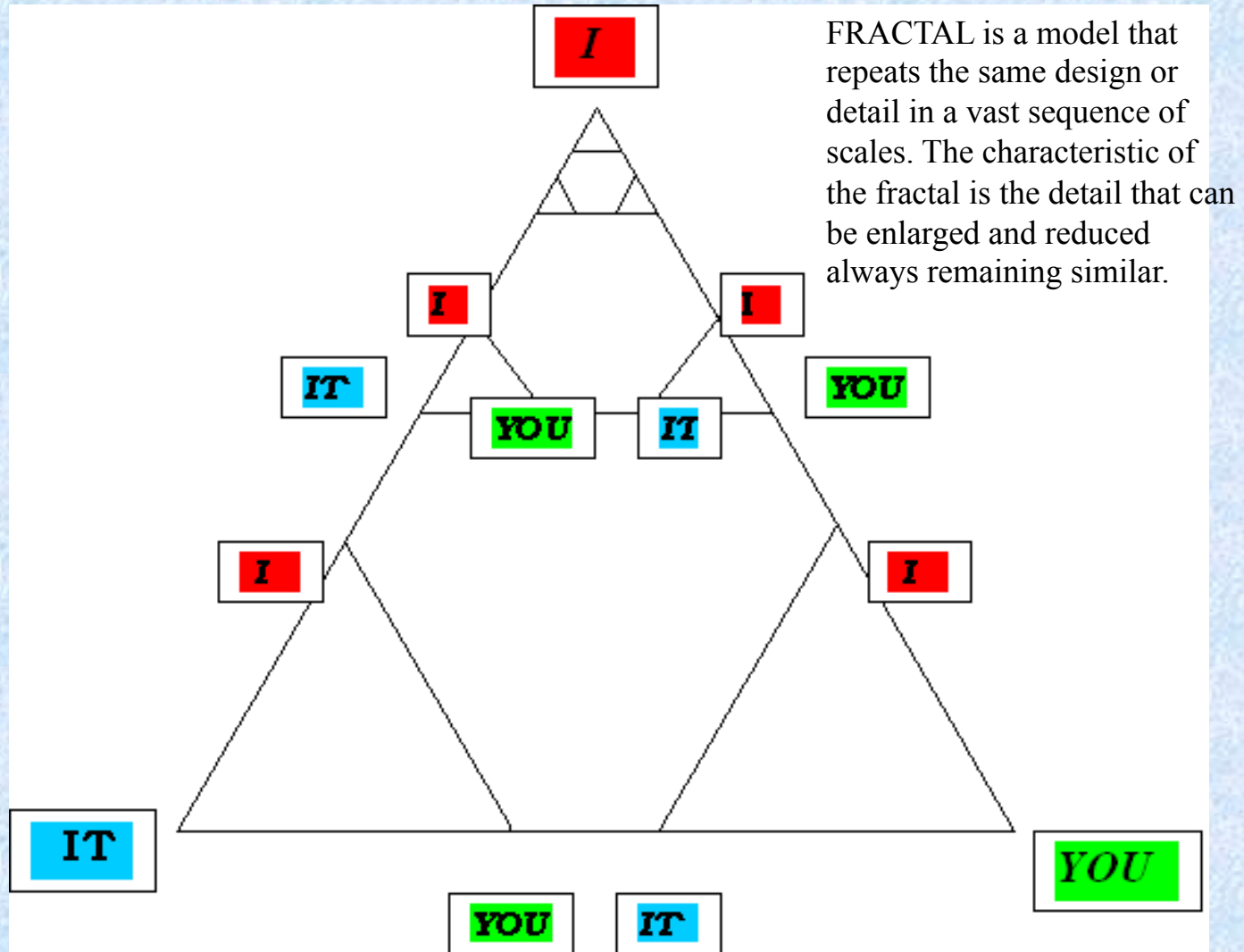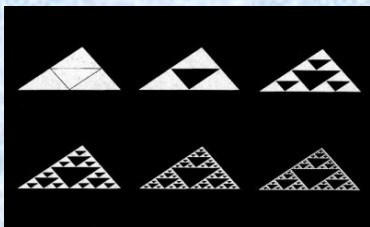
It differs from the methodologies of STATISTICS and EPIDEMIOLOGY, characteristic of EBM, that operate on the concept-object of population, because it is based on *subjectivity, that is* on *the measurement of selected variables of a SINGLE SYSTEM.*

Sierpinski's Triangle

FRACTAL is a model that repeats the same design or detail in a vast sequence of scales. The characteristic of the fractal is the detail that can be enlarged and reduced always remaining similar.

FRACTAL
Model:
Self-Similarity
Fine Structure
Irregularity

I

I   I

IT   YOU

YOU   IT

I   I

IT   YOU
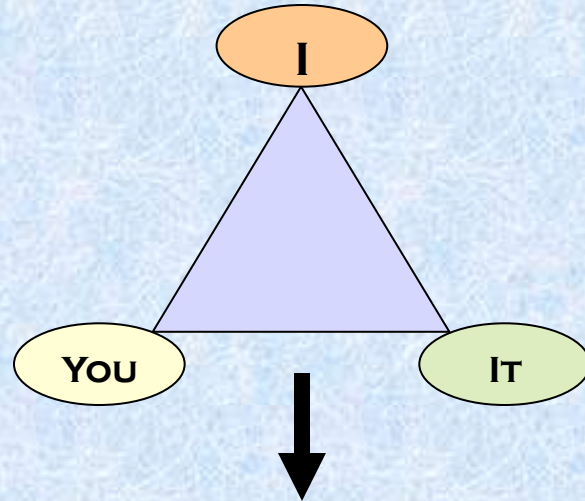
YOU   IT

TRIADIC STRUCTURE

Three Dimensions

I

YOU

IT

Each single dimension is decomposed and interfaced with each other and itself

I

YOU   IT

Activity ....   Therapist ....

Code	You Presence - Partecipation			I Emotions – Exchange			It Contents - Elaboration		
Date	It Partecipation	I Presence	You Receptivity	It Historical selfreference	I Emotional expression	You Response to group	It Ability to elaborate	I Ability to describe	You Ability to synthetise
9 Excellent									
8 Between									
7 Good									
6 Between									
5 Proper									
4 Between									
3 Poor									
2 Between									
1 Absent									

Notes:

Leader Project Structure

At the present moment the Project is composed of four discrete measurement GRIDS whose entries are placed in a deterministic order, from the most severe disorders to wellbeing.

Shaping Mind: filled by an expert psychoanalyst and measures the experience of the psychotherapeutic work.

Changing Boundaries which is composed of two grids:
daily activities filled in by nurses and
creative activities filled in by reabilitation therapists.

Self-image: self-evaluation grid, filled in by the patient.

RESEARCH PLANNING

Shaping Mind by Psychotherapists

I

YOU

IT

S E L F   b y

E V A L U A T I O N   p a t i e n t

E V E R Y D A Y   b y

A C T I V I T Y   n u r s e s

**Weekly activities   by Occupational therapsits
Changing boundaries**
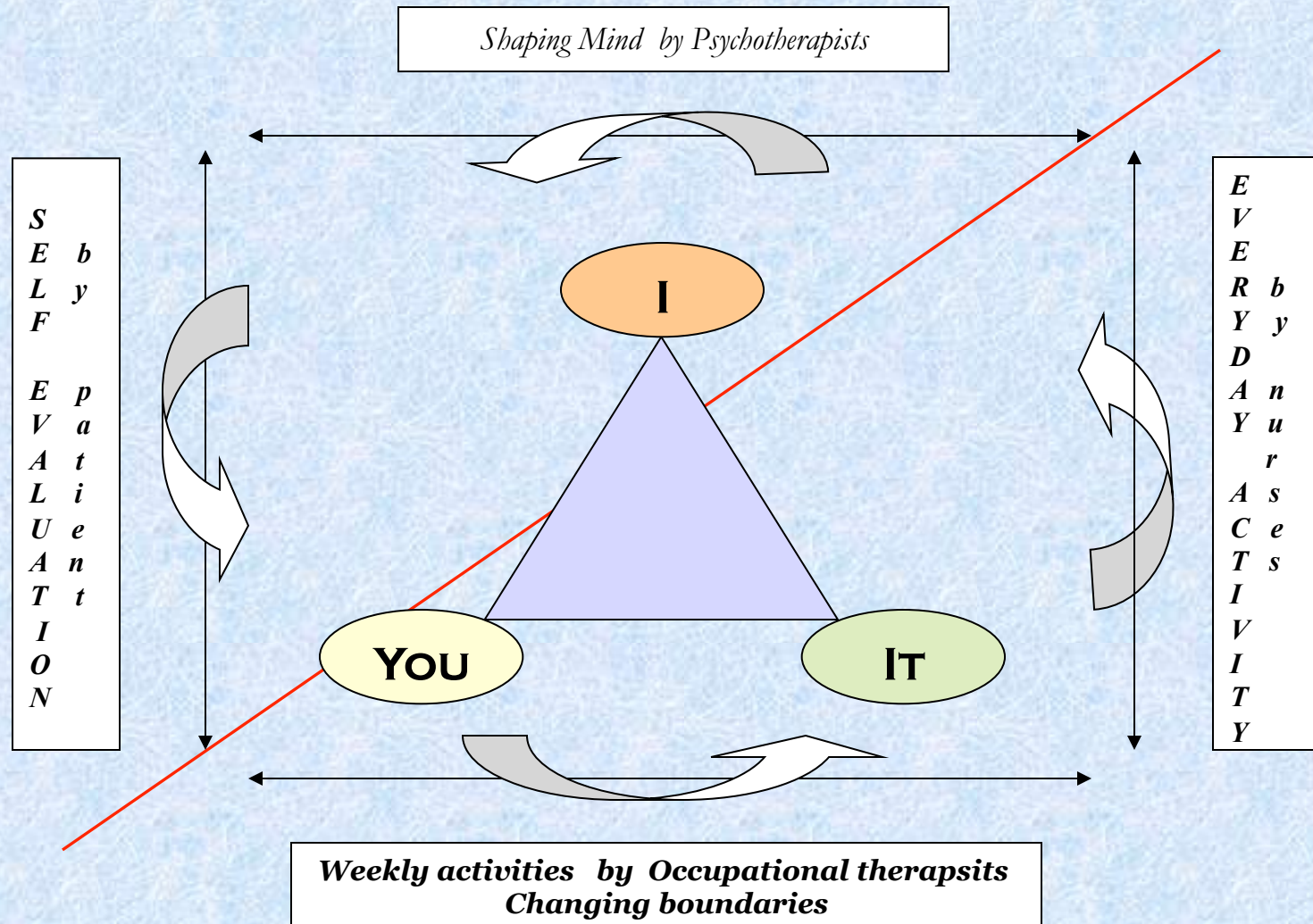
SHAPING MIND

A dynamical system model for the measurement of psychotherapeutic process

by Mario Pigazzini   Psychologist - IPA\ SPI Psychoanalyst

HELP

Structure

Grid Variables

Glossary

IMAGES

Figures

Samples

Theoretical

Framework

Homage to

Frances Tustin

RESEARCH

Insubria University - Como

Center for Nonlinear and Complex Systems

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A. Manzoni Hospital Trust - Lecco

Mental Health Department

mario@pigazzini.com

SHAPING MIND VARIABLES

variable	6 Self-Construction	7 Drives	8 Ego Functions
vectors	SELF-CONSCIOUSNESS / THROW AWAY	PLEASURE / FRUSTRATION	AUTONOMY / INHIBITION
30	Identificat with	30	30
29	Fell Secure	29 Creativity	29 Symbolic Realis
28		28	28
27	Self-esteem	27 Investigating	27 Making new H
26		26	26
25	Awareness of S	25 Give Meaning	25 Re-organisation
24		24	24
23	Self-observation	23 Play	23 Observation
22		22	22
21	Integration	21 Plasticity	21 Complexity
Phase Space 3	**TOWARD IDENTITY**	**BALANCE**	**Representing**
20		20	20
19	Workig Through	19 Conflict Resol	19 Understanding
18		18	18
17	Reparation	17 Rememb-Repea	17 Anticipation
16		16	16
15	Narcissistic Tr	15 Negative T R	15 Reasoning
14		14	14
13	Mirror Transf	13 Trans Neurosis	13 Integration
12		12	12
11	Imitation	11 Transference	11 Attention
Phase Space 2	**Self-recostruction**	**CONFLICT**	**THINKING**
10	Alliance	10	10 Containing
9	Take by hand	9 Mastering urge	9
8	Feel Safe	8	8 Epistemophylic
7		7 Inab cope frust	7 Abstracting
6	Find again	6	6
5	Stay in contact	5 Autoeroticism	5 Categorisation
4	Absorbing	4	4
3	Anchorage	3 Attachement	3 Perception
2	Make contact	2	2
1	Difficult contact	1 Eros & Thanat	1 Sensation
Phase Space 1	**EMERGE of SELF**	**IMPULSIVITY**	**EXPRESSIVE**
Coupling Interaction	Uncertainty	Far from equilibrium	Feed-Back
Dynamics of Interaction	SAFETY	PUSHING	LEARNING
Poles	YOU	I	IT
Basic Relationship	**DEVELOPMENTAL YOU**		

variable	3 Relationship	4 Defences	5 Anxieties
vectors	ATTACHMENT / AVOIDANCE	ADAPTABILITY / RIGIDITY	PRESERVATION / FAILURE
30		30	30
29	Social Function	29 Sublimation	29 Realistic
28		28	28
27	Belonging	27 Humor/Irony	27 Free-floating
26	Planning	26	26 Traumatic
25	Intimacy	25 Selfobservation	25 Occasional Neu
24	Altruism	24	24
23	Empathy	23 Putting FW	23 Grief
22		22	22
21	Mature Depend.	21 Suppression	21 Abandonment
Phase Space 3	**MATURE OBJECT**	**ADAPTIVE**	**Realistic Anxieties**
20		20 Compensation	20
19	Pseudoindepend.	19 Conversion	19 Hysteria
18		18 Negation	18
17	Hysterical	17 Dissociation	17 Phobic
16		16 Reaction-Form.	16
15	Manipulative/O	15 Undoing	15 Concern
14		14 Ration/Idealis	14
13	Sadomasochistic	13 Isolation	13 Castration
12		12 Displacement	12
11	Narcissistic	11 Repression	11 Separation
Phase Space 2	**PARTIAL OBJECT**	**NEUROTIC**	**LOST LOVE**
10		10 Idealisation/D	10 Sense of Impot
9	Anaclytic/Bord.	9 Omnipotence	9 Loss
8		8	8 Vulnerability
7	Aggressivity/M	7 Introjection	7 Depression
6		6 Massive Project	6
5	Persecutory/P	5 Projective Iden	5 Annihilation
4		4	4 Object Fragm
3	Symbiotic	3 Denial	3 Self-Fragment
2		2	2
1	Autistic	1 Splitting	1 Disintegration
Phase Space 1	**FUSIONAL**	**PSYCHOTIC**	**LOST SELF**
Coupling Interaction	Dep. Initial Condition	Self-similarity	Unpredictability
Dynamics of Interaction	INTIMACY	IDENTITY	INTEGRITY
Poles	YOU	I	IT
Basic Relationship	**STRUCTURAL - I -**		

variable	9 The observer	10 Body-Emotions	11 The events
vectors	PRESSURE TO CHANGE / RESISTANCE TO CHAN	RELAXATION / TENSION	POSITIVE / NEGATIVE
30		30 Blissfulness	30 Fortune smiles
29	Construction	29 Pleasure	29 Success
28		28	28
27	Elaboration	27 Peace	27 Every goes well
26		26	26
25	Mutative Interp.	25 Relief	25 Satisfaction
24		24	24
23	Transference Int	23 Needs satisfact.	23 Every day prob
22		22	22
21	Link	21 Inner coheren.	21 Occ. Weakness
Phase Space 3	**COOPERATION**	**RELAX**	**SATISFACTION**
20		20	20 Discord with
19	Get in touch	19 Histrionic beha	19 Moving house
18		18	18
17	Frustration	17 Compulsion	17 Dissatisfaction
16		16	16 Financial prob.
15	Resistance	15 Mood	15 Health problem
14		14	14
13	Defence	13 Panic states	13 Discrimination
12		12	12
11	Hostility	11 Instability	11 Unemployment
Phase Space 2	**PROTECTION**	**TENSENESS**	**DIFFICULTIES**
10		10	10
9	Criticising adver	9 Paranoid acting	9 Serious Illness
8		8	8
7	Attack	7 Un-affectivity	7 Abuse
6		6	6
5	Seek to hurt	5 Panic Terror	5 Fam Disruption
4		4	4
3	Overwhelming	3 Confusional st.	3 Death
2		2	2
1	Mutism	1 Body Denial	1 Disasters
Phase Space 1	**ACTING AGAINST**	**REFUSAL**	**TRAUMATIC EXP**
Coupling Interaction	Iteration: the route to chaos	Oscillation	Random
Dynamics of Interaction	FLOATING	FEELING	CONTINUITY
Poles	YOU	I	IT
Basic Relationship	**INTERACTIVE IT**		

1 Code	2 Date

Leader Project - Lecco Adelaide Evaluation Research Project -

Form

YOU			I			IT			Variables
6	**7**	**8**	**3**	**4**	**5**	**9**	**10**	**11**	
30	30	30	30	30	30	30	39	30	**Notes**
29	29	29	29	29	29	29	29	29	
28	28	28	28	28	28	28	28	28	**I**
27	27	27	27	27	27	27	27	27	
26	26	26	26	26	26	26	26	26	
25	25	25	25	25	25	25	25	25	
24	24	24	24	24	24	24	24	24	
23	23	23	23	23	23	23	23	23	
22	22	22	22	22	22	22	22	22	
21	21	21	21	21	21	21	21	21	
20	20	20	20	20	20	20	20	20	
19	19	19	19	19	19	19	19	19	
18	18	18	18	18	18	18	18	18	**You**
17	17	17	17	17	17	17	17	17	
16	16	16	16	16	16	16	16	16	
15	15	15	15	15	15	15	15	15	
14	14	14	14	14	14	14	14	14	
13	13	13	13	13	13	13	13	13	
12	12	12	12	12	12	12	12	12	
11	11	11	11	11	11	11	11	11	
10	10	10	10	10	10	10	10	10	**It**
9	9	9	9	9	9	9	9	9	
8	8	8	8	8	8	8	8	8	
7	7	7	7	7	7	7	7	7	
6	6	6	6	6	6	6	6	6	
5	5	5	5	5	5	5	5	5	
4	4	4	4	4	4	4	4	4	
3	3	3	3	3	3	3	3	3	
2	2	2	2	2	2	2	2	2	**Patient code** — **Session date**
1	1	1	1	1	1	1	1	1	

1° Diagram

paz 1

3° Diagram

Patient Number 133

Mean Progress Gradient = -3.0475

Standard Deviation

Date
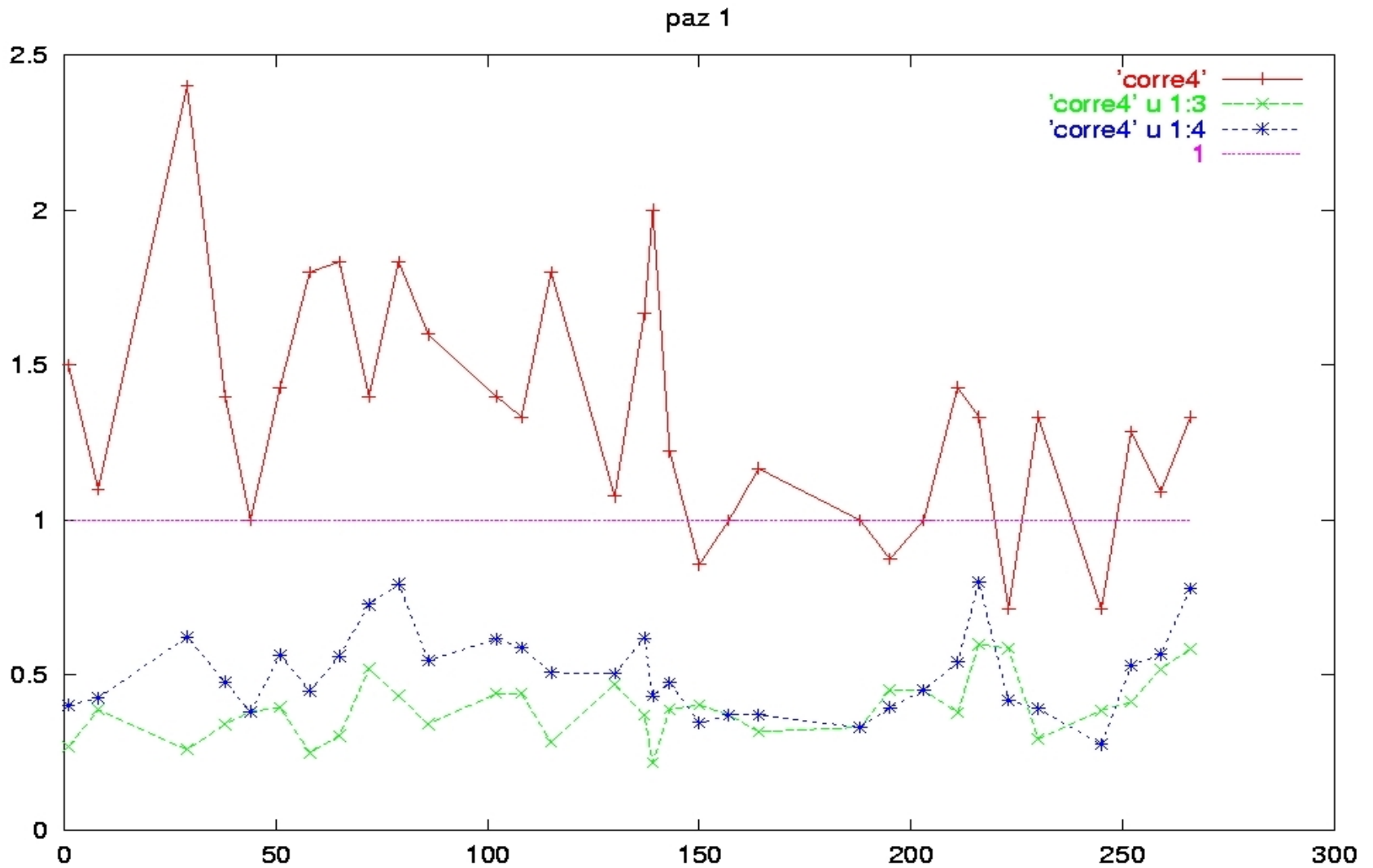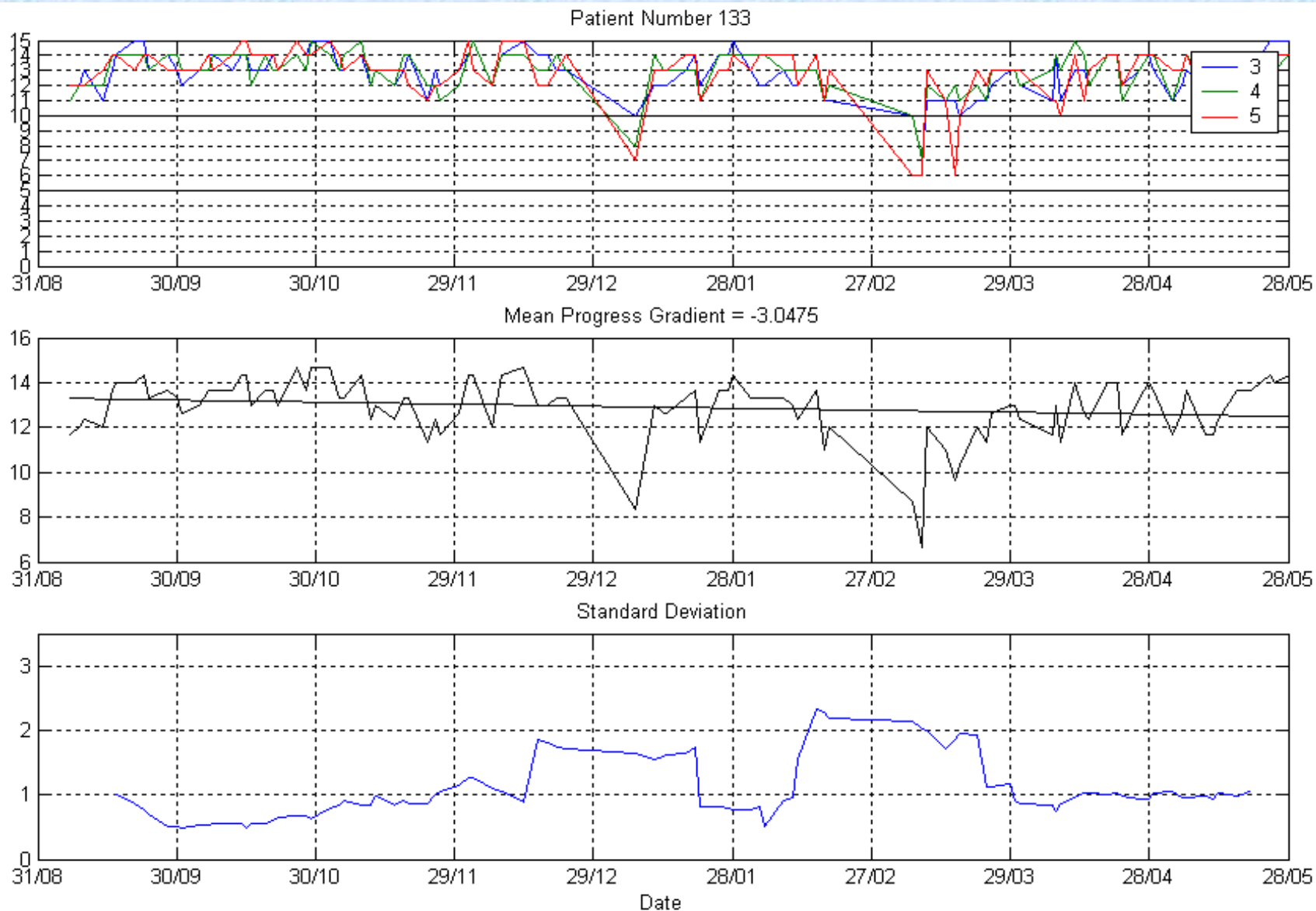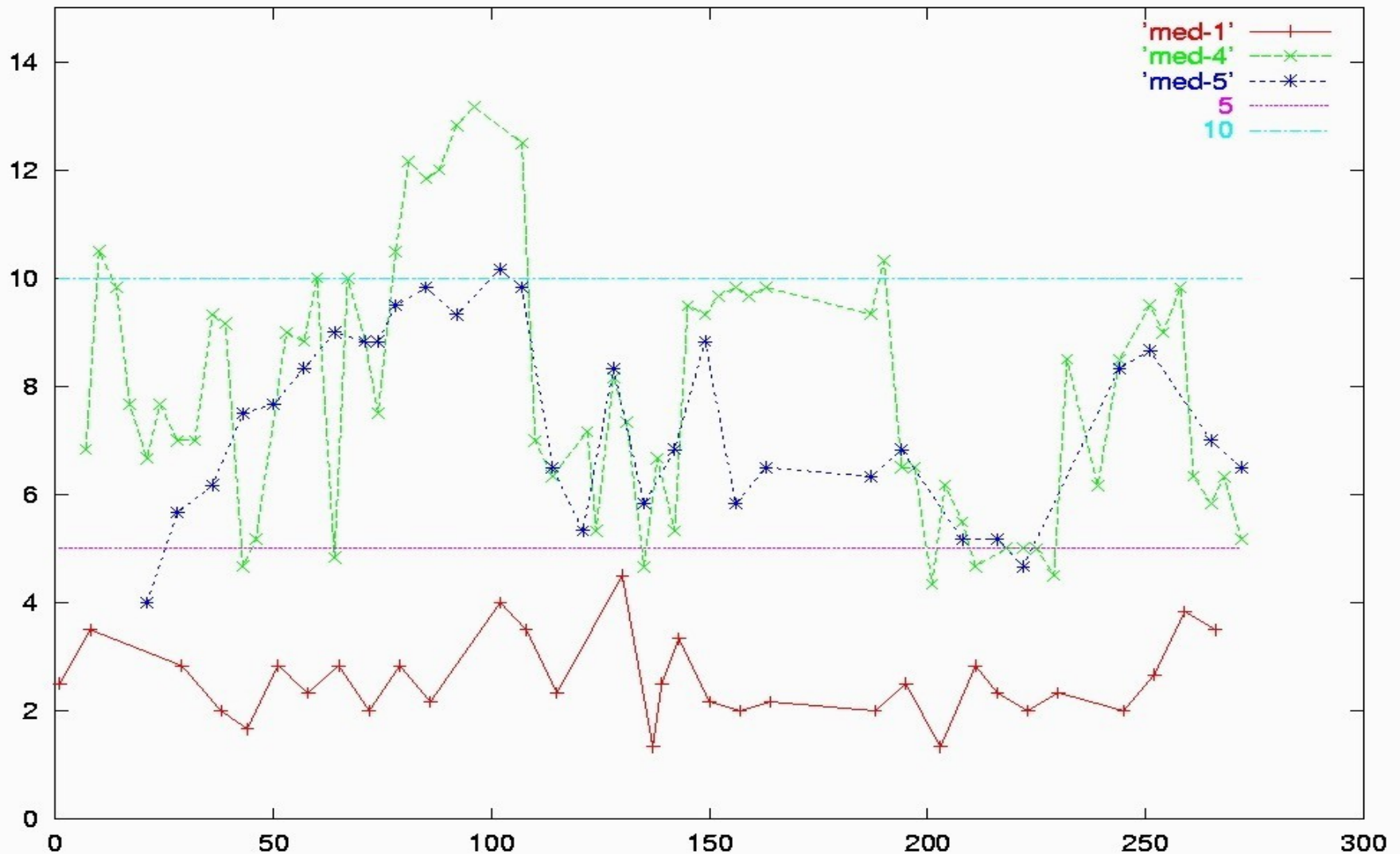
Changing Boundaries in Psychotic States

Evaluation of change
within a
Residential Centre

A Cura di :

Mario Pigazzini – UOP Lecco

Prof. Giorgio Mantica- Un. Insubria
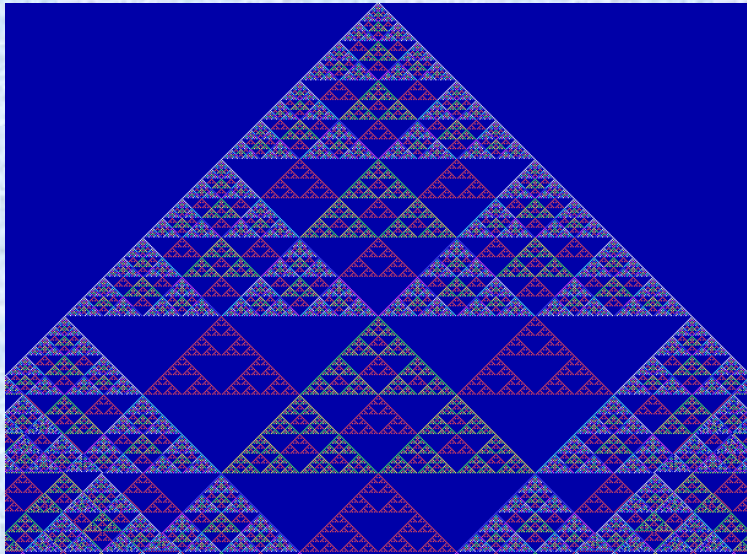
Barbara Carminati – Un. Insubria

Silvia Cornara – CRT Garbagnate

Grid's Dimensions

Code	You Presence - Partecipation			I Emotions – Exchange			It Contents - Elaboration		
	It Partecipation	I Presence	You Receptivity	It Historical selfreference	I Emotional expression	You Response to group	It Ability to elaborate	I Ability to describe	You Ability to synthetise
Date	It Partecipation	I Presence	You Receptivity	It Historical selfreference	I Emotional expression	You Response to group	It Ability to elaborate	I Ability to describe	You Ability to synthetise
9 Excellent									
8 Between									
7 Good									
6 Between									
5 Proper									
4 Between									
3 Poor									
2 Between									
1 Absent									

Notes:

EMOTIONS – EXCHANGE:

Emotional expression, I

Response to group, YOU

Historical selfreference, IT

I

PRESENCE – PARTECIPATION:

Presence, I

Receptivity, YOU

Partecipation, IT

You

CONTENTS – ELABORATION:

Ability to describe, I

Ability to synthetise, YOU

Ability to elaborate, IT
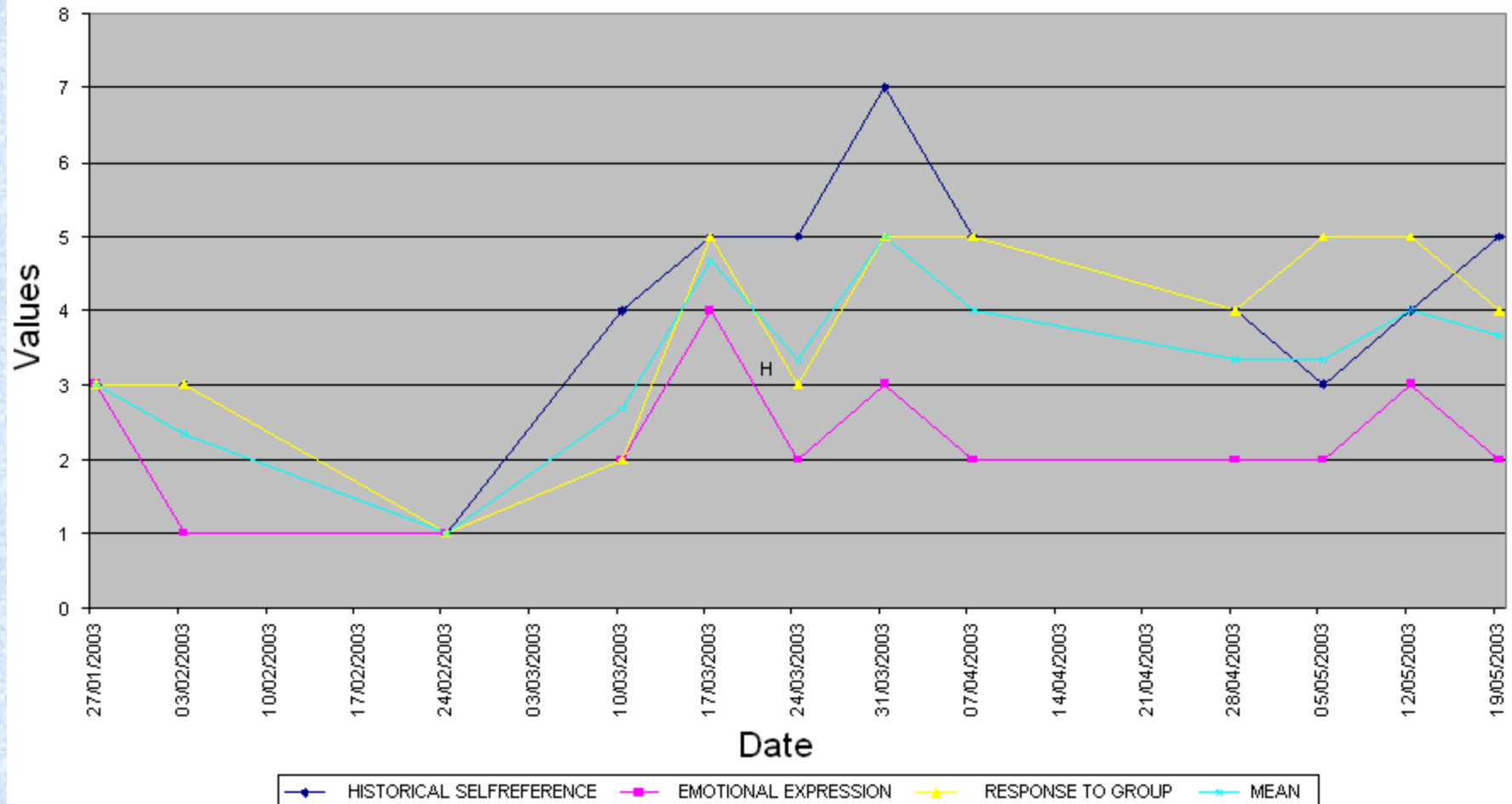
It

Weekly Activities Grid

Activity ....   Therapist ....

Code	You **Presence - Partecipation**			I **Emotions – Exchange**			It **Contents - Elaboration**		
Date	It Partecipation	I Presence	You Receptivity	It Historical selfreference	I Emotional expression	You Response to group	It Ability to elaborate	I Ability to describe	You Ability to synthetise
9 Excellent									
8 Between									
7 Good									
6 Between									
5 Proper									
4 Between									
3 Poor									
2 Between									
1 Absent									

Notes:

1° Diagram

ACTIVITY I - Theatre-

Activity YOU - Music -

Activity IT - Poetry -

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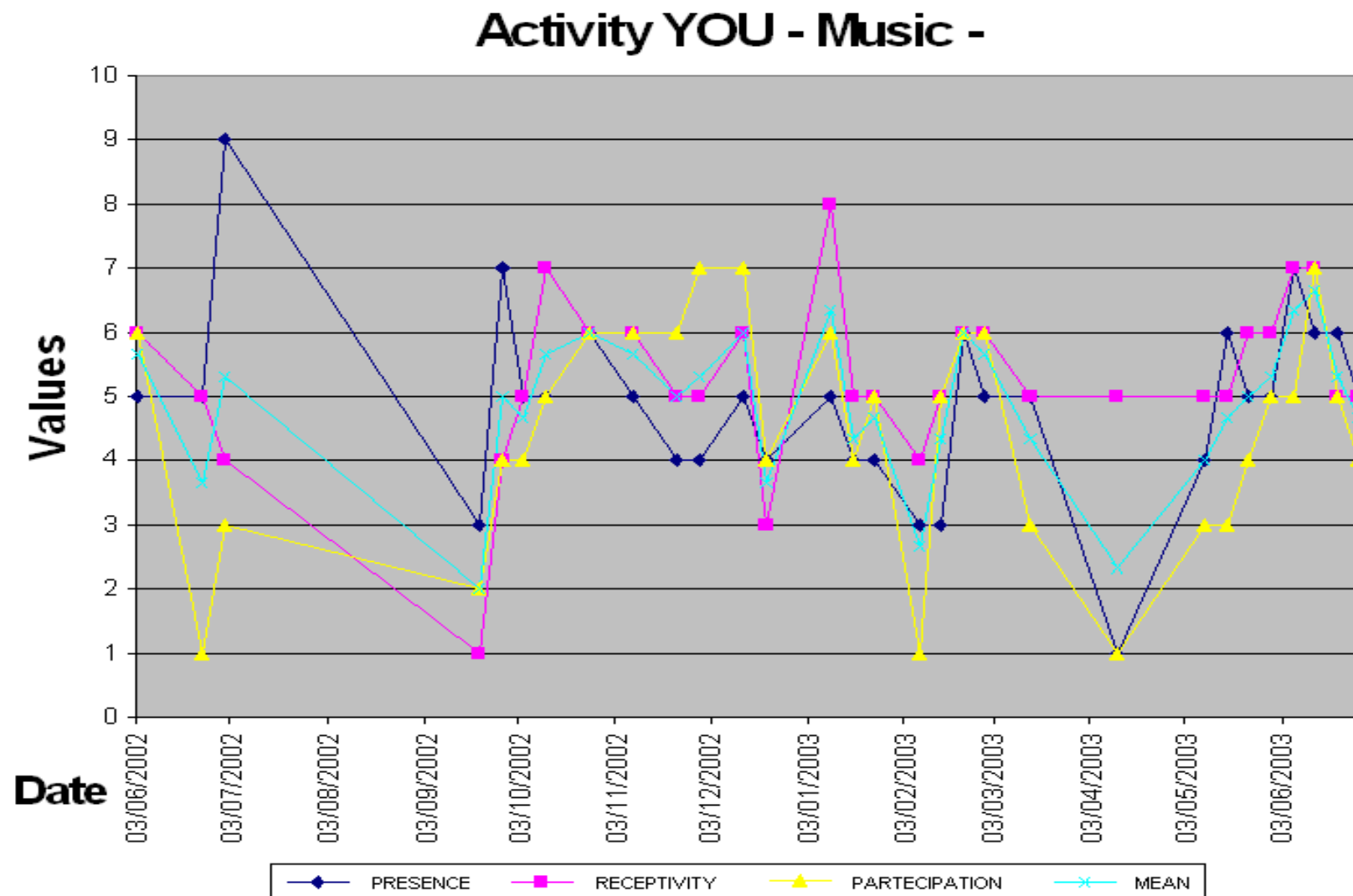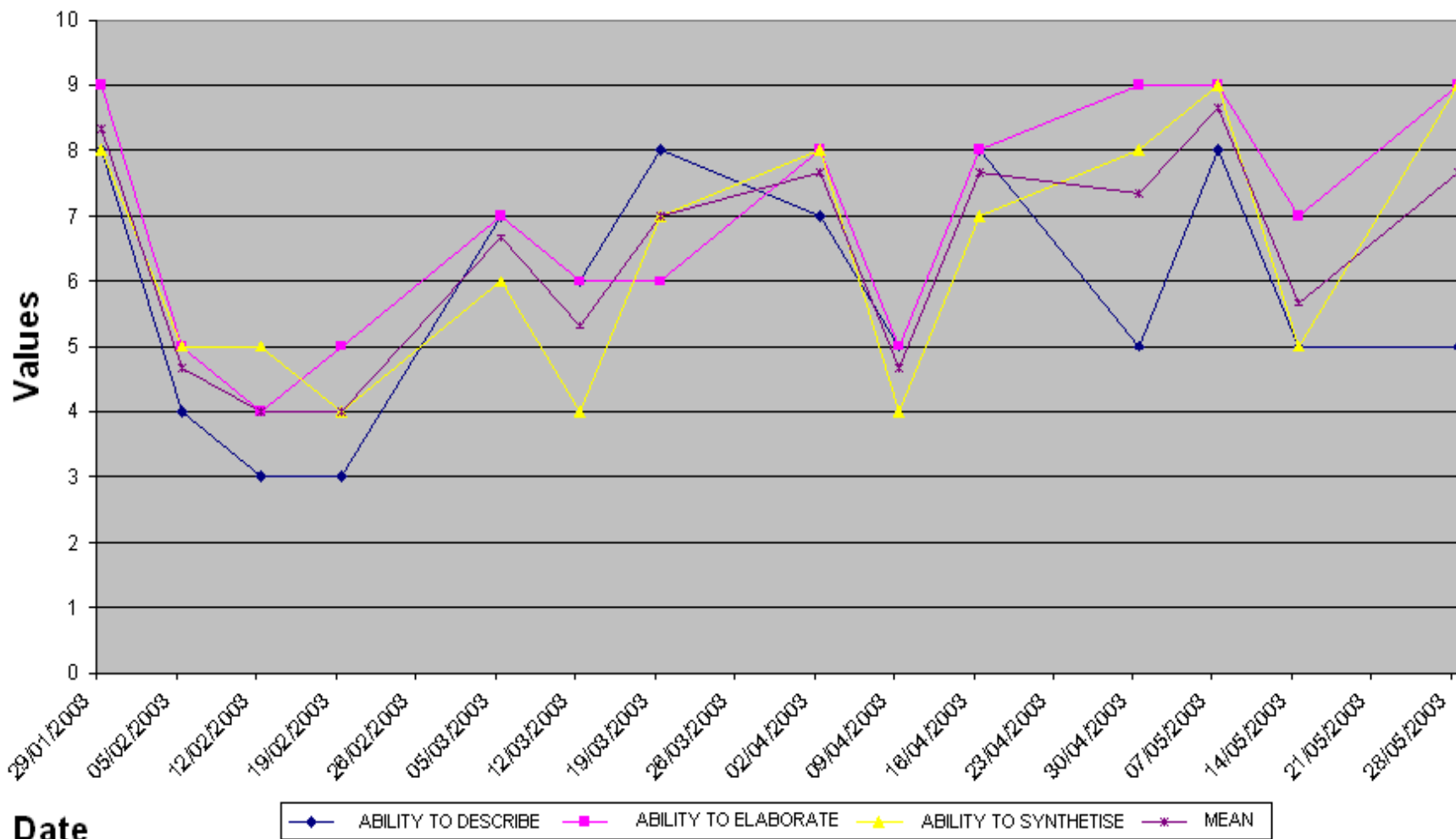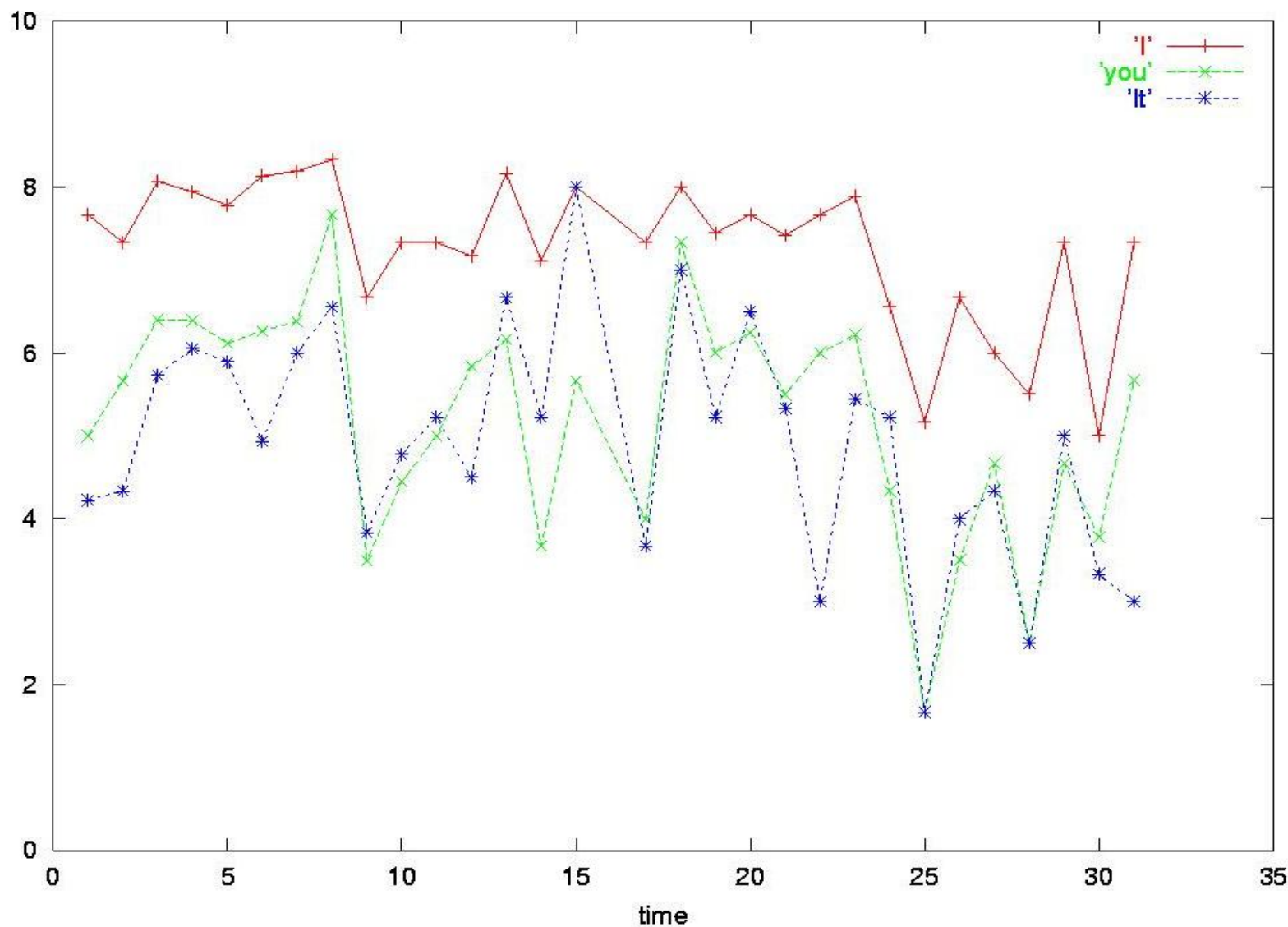
Daily Activities Grid

CRT – Evaluation grid for daily experience - Mr									year month								week from								to																							
	Monday									Tuesday									Wednesday									Thursday									Friday								
I	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
Hygene																																													
Nutrition																																													
Self-care																																													
Attendance																																													
Health																																													
YOU	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
Aggression																																													
Rules																																													
Family																																													
Friends																																													
Affectivity																																													
IT	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9
Autonomy																																													
Activities																																													
Interests																																													
Creativity																																													
Money																																													

Nurse ....   Nurse ....   Nurse ....   Nurse ....   Nurse ....

Leader Project - Lecco Adelaide Evaluation Research Project -

1° Diagram

Paziente 1 variabli 1

media e gradiente di progresso = 0.0017719

Leader Project - Lecco Adelaide Evaluation Research Project -

3° Diagram

Paziente 1 variabli 1 2 3 4 5

media e gradiente di progresso = -0.0038674

Synthesis

paz1

Legend:
- 'fort.40' u 2:3
- 'fort.40' u 2:4
- 'fort.40' u 2:5
- 'fort.40' u 2:6
- 'fort.40' u 2:7
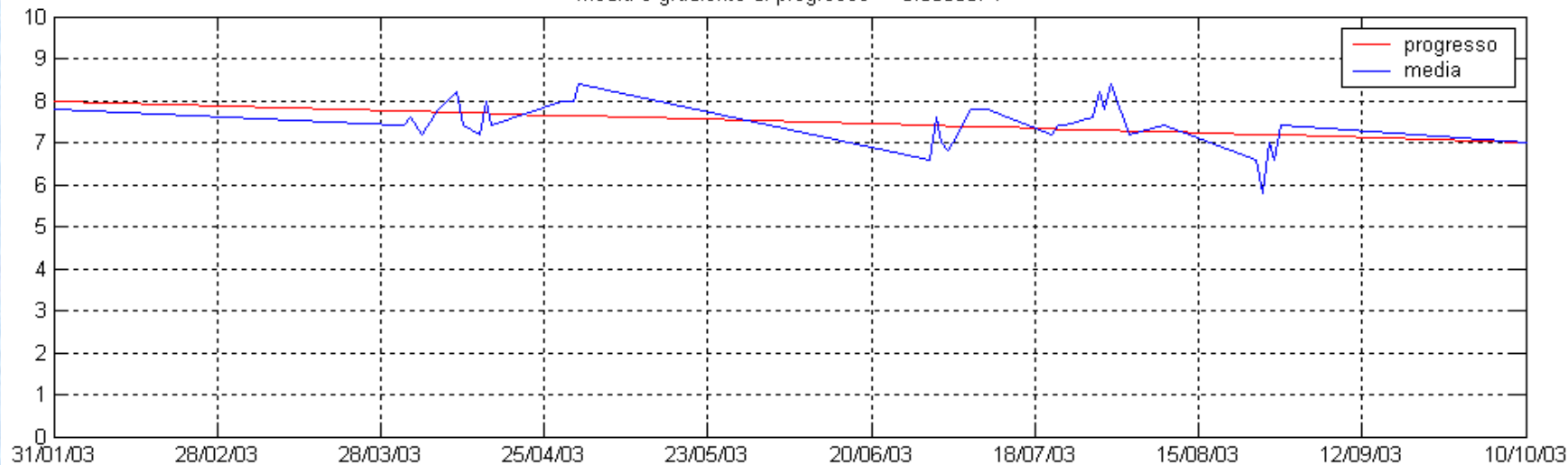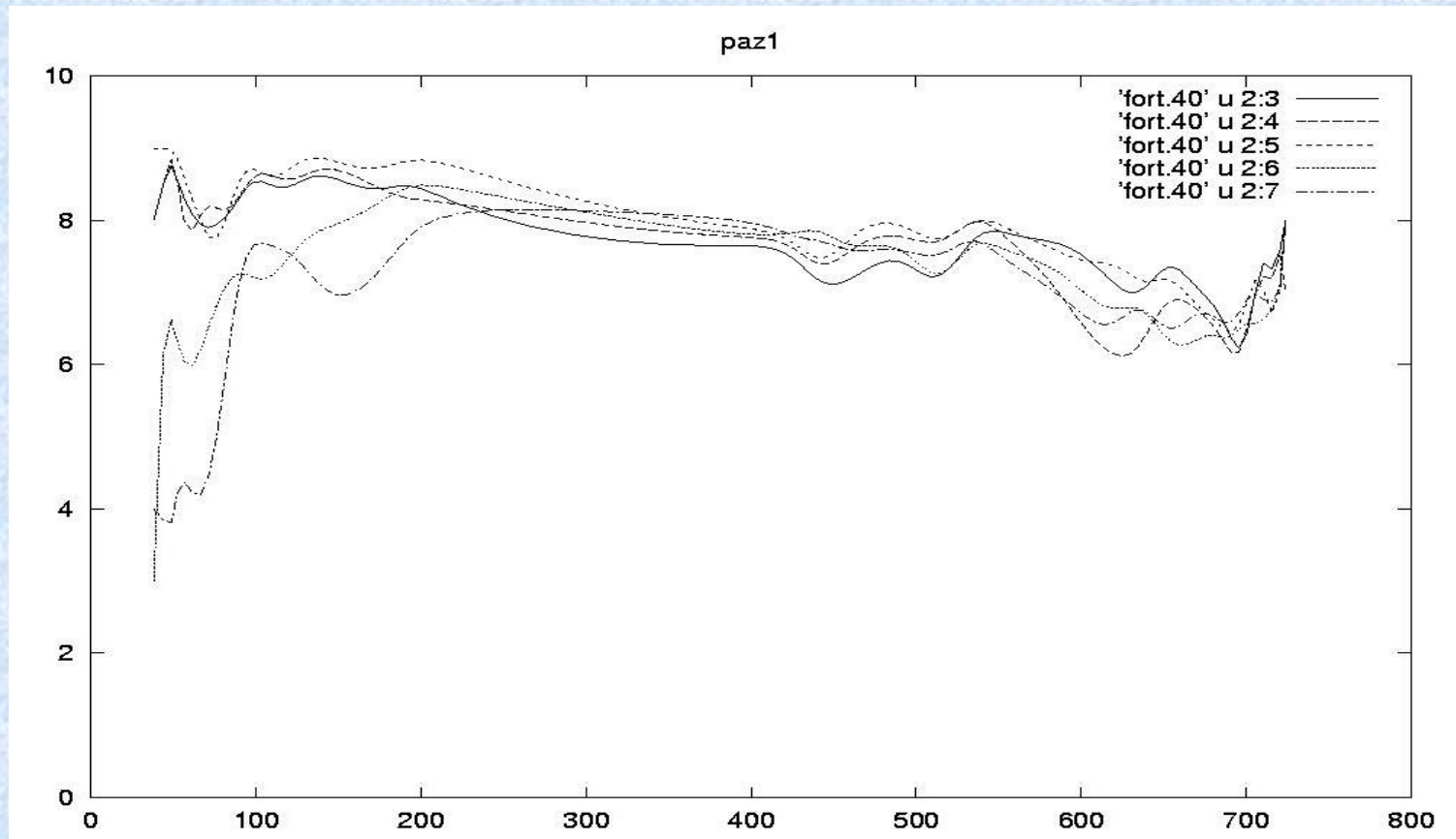
S e l f - I m a g e

Mario Pigazzini
Giorgio Mantica

Marta Pigazzini

Research in progress

Self – Image Grid

The Self-Evaluation Variables

The values to insert
1= absence, very low >2< 3=inadequate >4< 5= satisfactory >6
6< 7= good level >8< 9 = very well, great result
The values 2-4-6-8 represent the uncertainty between the other values

Shaping mind Self-evaluation Research		Weekly							or
		M	Th	W	T	F	Sat	S	Week
Observation of the self - I									
To feel well - Relax - Sense of Pleasure	1								
Mood level - Uncertainty	2								
Sense of humour – Critical attitude	3								
Adaptability	4								
Cope with conflict	5								
Creativity	6								
Observation of the relationship - YOU									
Frustration Tolerance	7								
Cooperation - Sharing	8								
Social Belonging – Empathy - Intimacy	9								
Attachment – Developing dependence	10								
Self-esteem – Self-consciousness	11								
Feel secure – Constructive identification	12								
Observation of the interactions - IT									
Events Memory	13								
Social competence – Satisfaction	14								
Feel safe	15								
Cope with reality and difficulties	16								
Degree of Autonomy	17								
Ability to organise oneself	18								

200... - Month of....................... - Week from...... to ......, by...............................
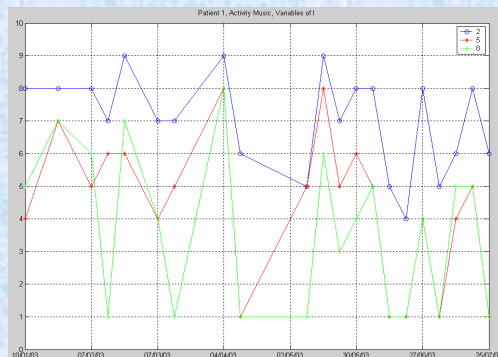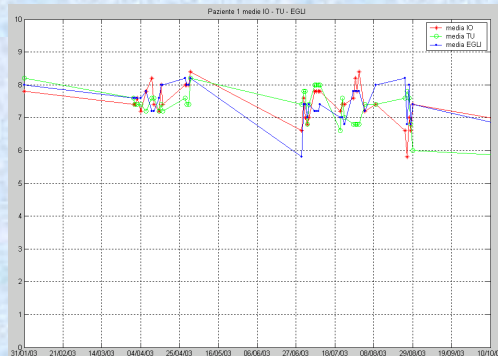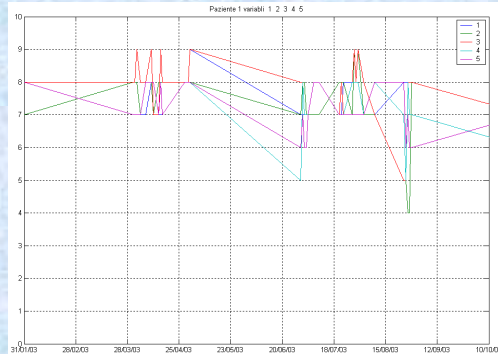
From the plots we can observe:

1. the *evolution* of each single variable and make a *comparison;*

2. the trend of the *three basic dimensions,* obtained plotting the mean between the values of the three variables forming each dimension;

3. the behaviour of the single *variables in each of three dimensions;*

Database

The data analysis is done using softwares, expressly written for this project:

"*Shaping Mind*"

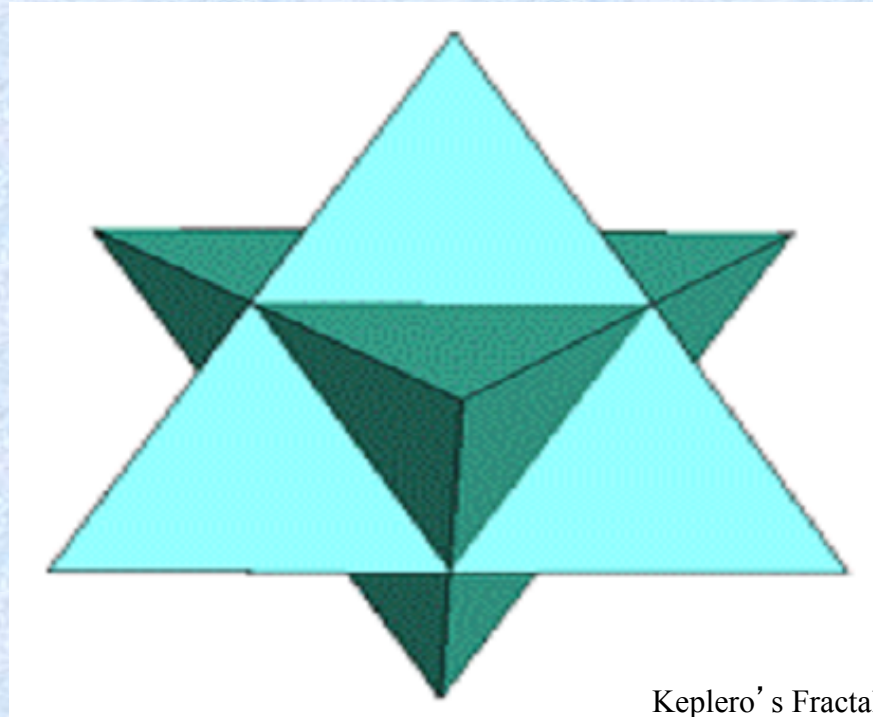"*Changing Boundaries in Psychotic States*"

"*Self-Image*"

Thanks to the collaboration between
Lecco Hospital
(Dott. Mario Pigazzini), and the
Department of Chemical Physical and
Mathematical Sciences of the University
of Insubria, Como
(Prof. Barbara Carminati,
Prof. Giorgio Mantica)

OSPEDALE DI LECCO

Leader Project

Keplero's Fractal

Thanks for your attention