13th conference of Bridging Eastern and Western Psychiatry
Kyiv (Ukraine)
June 10th-13th 2010
Coping complex issues for Contemporary Psychiatry:
What we can treat; what we cannot treat

Personality and Temperament in Bipolar Disorder

Alessandro Del Debbio, MD, PhD

Dpt of Psychiatry, Versilia Hospital, Italy

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Conceptual issues and key definitions (1)

- Personality: the unique aspects of an individual, especially those most distinctive or likely to be noticed by others in social interactions.

  "What a person 'really is'"[1]

  "The individual's social stimulus value; an individual's general adjustment" [2]

[1] Allport GW (1961). *Pattern and growth in personality*. New York: Holt, Rinehart and Winston.

[2] Hall CS, and Lindzey G (1970). *Theories of personality*. New York: John Wiley & Sons.

Conceptual issues and key definitions (2)

- Personality: two major domains [1]

Temperament

- including an individual's susceptibility to emotional stimulations, his strength and speed of response, the quality of his prevailing mood and all peculiarities of fluctuation and intensity in mood
- having a constitutional, genetic and biological basis

Character

- the particular cognitive and interpersonal style, defences, expectations, and patterns of response
- weakly heritable, shaped by environmental, sociocultural learning experiences

[1] Cloninger CR. (1994). *Temperament and personality*. Current Opinion in Neurobiology, 4:266-73

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Conceptualizing the relation between personality and psychopathology

Set I: Predispositional	
Vulnerability model	Onset of disorder
Pathoplasty/exacerbation model	Course and expression of disorder
Set II: Incidental	
Complication model	Result of disorder
Common cause model	Continuum of severity

[1] Bagby RM, Ryder AG. (2000). *Personality and the Affective Disorders: past efforts, current models, and future directions.* Current Psychiatry Reports, 2:465-472

Relationship of personality to Affective Disorders[1]

- Personality as a *predisposition* to affective illness
- Personality as a *expression* of affective illness (Kraepelin, Kretschmer)
- Personality as a *modifier* of affective illness (Klerman, von Zerssen)
- Personality is *altered* by affective illness

[1] Goodwin FK & Jamison KR (2007). Manic-Depressive Illness. Bipolar Disorders and Recurrent Depression. 2nd Edition. Oxford University Press

Manic-depressive temperaments and subaffective personality types

A) Classic clinical descriptions

B) Clinical studies

Classic clinical descriptions (1)

"Sunt enim quattuor humores in homine, qui imitantur diversa elementa; crescunt in diversis temporibus, regnant in diversis aetatibus"

"There are four humours in man, which resemble the different elements, they are increasing in different times and prevail each in different ages"

Anonym, *De mundi constitutione*

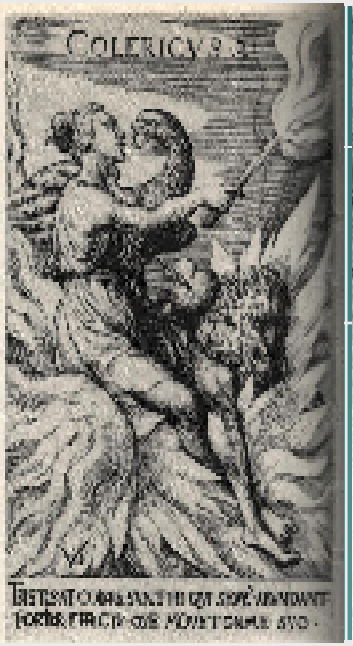
Blood: resembles the air; increases in spring and prevails in childhood

Yellow bile: resembles the fire; increases in summer and prevails in adolescence

Black bile: resembles the earth; increases in autumn and prevails in maturity

Phlegm: resembles the water; increases in winter and prevails in elderly

Classic clinical descriptions (2)

Galen (130-201 AD)				
Actual				

Classic clinical descriptions (3)

Dimensions of temperaments in Wilhelm Wundt

		intensity	
		strong	week
speed of variability	fast	choleric	sanguine
	slow	melancholic	phlegmatic

Classic clinical descriptions (4)

Kraepelin: the "*fundamental states*"

- Depressive temperament ("constitutional moodiness")
- Manic temperament ("constitutional excitement")
- Irritable temperament
- Cyclothymic temperament

"The real, the deeper cause of manic-depressive illness is to be sought in a permanent morbid state which must also continue to exist in the intervals between the attacks" (Kraepelin, 1921)

Classic clinical descriptions (5)

The Temperaments in Kretschmer

	Cyclothymes	*Schizothymes*
Psychoesthesia and mood	Diathetic proportion: between raised (gay) and depressed (sad)	Psychaesthetic proportion: between hyperesthetic (sensitive) and anaesthetic (cold) [1]
Psychic tempo	Wavy temperamental curve: between mobile and comfortable	Jerky temperamental curve: between unstable and tenacious alternation mode of thought and feeling
Psychomotility	Adequate to stimulus, Rounded, natural, smooth	Often inadequate to stimulus: restarined, lamed, inhibited, stiff, etc.
Physical Affinities	Pyknic	Asthenic, athletic, dysplastic, and their mixtures

Schizoid is *reizbar und stumpf*, with an affective anestesia and iperestesia

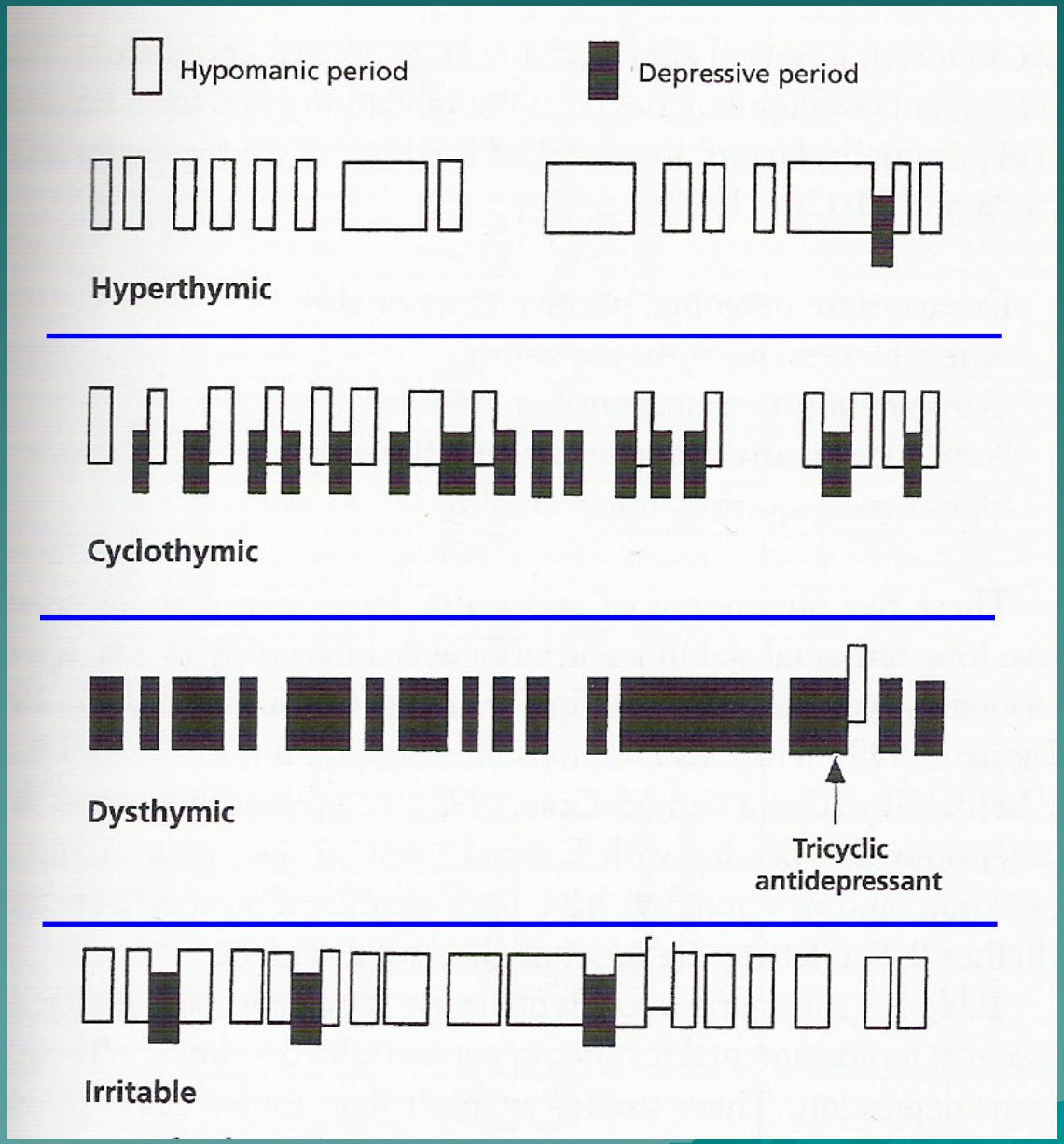
Classic clinical descriptions (6)

Temperaments: comparison between Hippocrates and Pavlov

Hippocratic	**Pavlovian**	
Choleric	Excitatory	Pugnacious, passionate
Sanguine	central type	Well balanced, equilibrated, healthy, stable
Phlegmatic		
Melancholic	Inibitory	he believes in nothing, hopes in nothing

A physiological study of the types of nervous systems, 1928

In the modern literature…



Akiskal and Akiskal, 1992

Cyclothymia

- A common temperamental variant that occurs in 0.4 to 6.3% of the population (Depue et al., 1981; Placidi et al., 1998; Chiaroni et al., 2005)

- *Pure cyclothymia*: equal proportion of depressive and hypomanic swings, alternating in an irregular fashion

- *Predominantly depressed cyclothymia*: depressive periods dominating the clinical picture, interspersed with "even", "irritable", and occasionally hypomanic periods

- *Hyperthymia*: hypomanic traits (decreased need for sleep, expansive behavior, wild lifestyle) dominating, with occasional depressive and irritable episodes (Akiskal, 1998)

- often precedes or underlies bipolar II disorder (Hantouche et al., 1998; Perugi and Akiskal, 2002)

- Of the affective temperaments it is the most correlated with emotional and behavioral problems (Signoretta et al., 2005)

Cyclothymia

Biphasic mood swings-abrupt from one phase to the other, each phase lasting for a few days at a time with infrequent interphase euthymia.

At least four of the following features constitute the habitual long-term baseline of the subject:

1. Lethargy alternating with eutonia
2. Shaky self esteem alternating between low self-confidence and overconfidence
3. Decreased verbal output alternating with talkativeness
4. Mental confusion alternating with sharpened and creative thinking
5. Unexplained tearfullness alternating with excessive punning and jocularity
6. Introverted self-adsorption alternating with uninhibited people-seeking.

(Akiskal et al. 1979, 1998)

Hyperthymia

At least four of the following traits constitute the habitual long-term baseline of the subject:

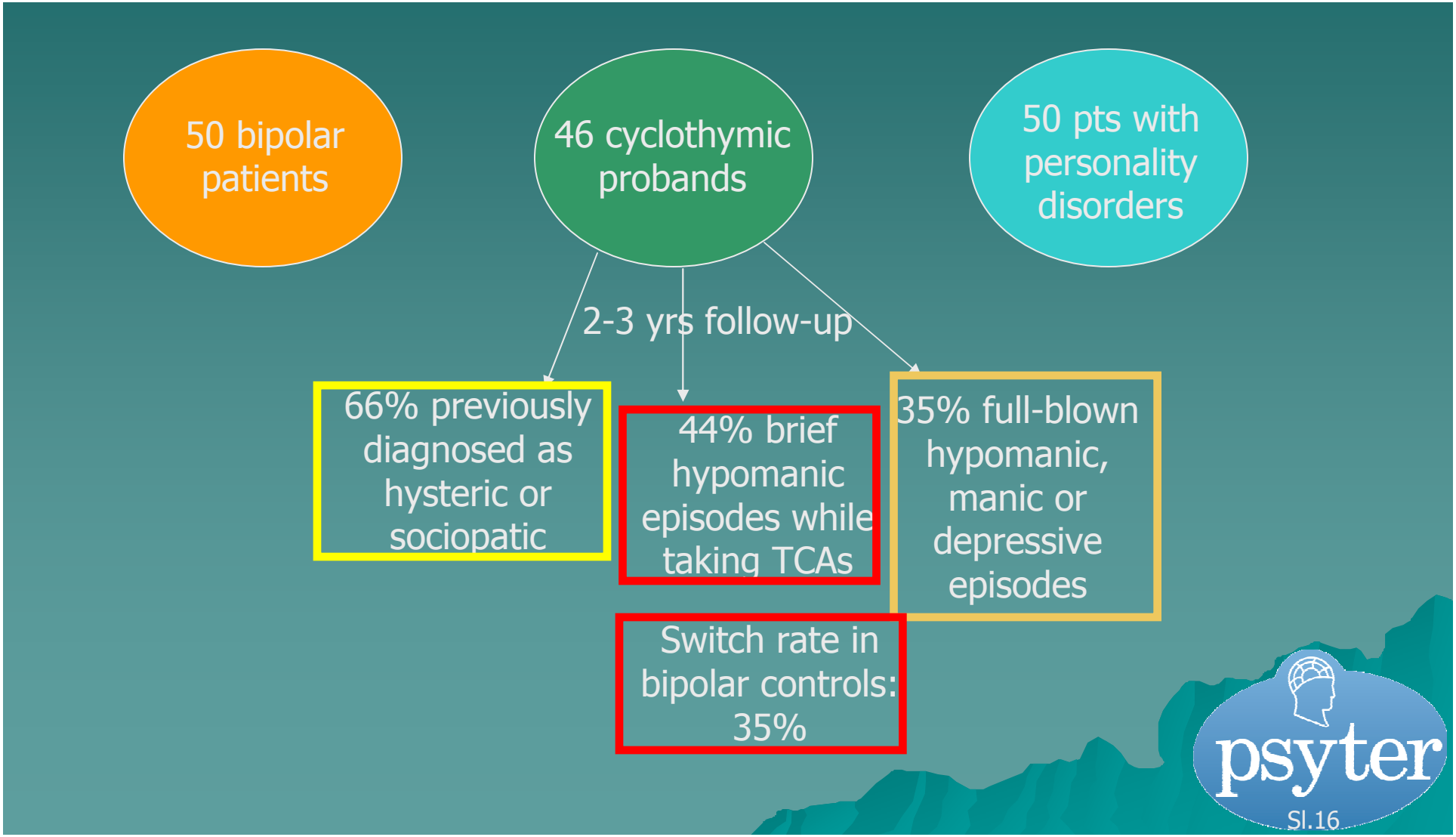
- Warm, people seeking or extraverted
- Cheerful, overoptimistic or exuberant
- Uninhibited, stimulus seeking or risk taking
- Overinvolved and meddlesome
- Vigorous, overenergetic and full of plans
- Self-assured, overconfident or boastful
- Overtalkative or articulate

Akiskal HS et al. Gender, temperament, and the clinical picture in dysphoric mixed mania: findings from a French national study (EPIMAN).
J Affect Disord. 1998 Sep;50(2-3):175-86.

Am J Psychiatry. 1977 Nov;134(11):1227-33.

Cyclothymic disorder: validating criteria for inclusion in the bipolar affective group.

Akiskal HS, Djenderedjian AM, Rosenthal RH, Khani MK.



Am J Psychiatry. 1977 Nov;134(11):1227-33.

Cyclothymic disorder: validating criteria for inclusion in the bipolar affective group.

Akiskal HS, Djenderedjian AM, Rosenthal RH, Khani MK.

Moreover, in the cyclothymic group:

- ¾ patients met criteria for alternating patterns of sleep disorder, fluctuating levels in the quantity and quality of work or school productivity and finantial disinihibition
- ½ patients reported periods of irritability or aggressiveness, patterns of frequent shifts in interests or plans, drug or alcohol abuse, or fluctuating levels of social interaction
- 40% showed episodic promiscuity or extramarital affairs

Arch Gen Psychiatry. 1985 Oct;42(10):996-1003.

Affective disorders in referred children and younger siblings of manic-depressives. Mode of onset and prospective course.

Akiskal HS, Downs J, Jordan P, Watson S, Daugherty D, Pruitt DB.

- 68 referred juvenile offspring or siblings of adult bipolar patients
- 12 were classified as dysthymic and ten as cyclothymic
- 11 subjects with polisubstance abuse, who at onset did not meet criteria for affective disorder, were reclassified as having either a dysthymic or a cyclothymic disorder during follow-up

Arch Gen Psychiatry. 1986 May;43(5):441-5.

Inventory identification of cyclothymia. IX. Validation in offspring of bipolar I patients.

Klein DN, Depue RA, Slater JF.

- the General Behavior Inventory (GBI), a blind, structured diagnostic interview were administered to 37 offspring of bipolar I patients and 21 offspring of psychiatric control patients
- twenty-seven percent of the offspring of bipolar patients, but none of the control offspring, were found to have bipolar forms of affective disorder, primarily cyclothymia (24%).

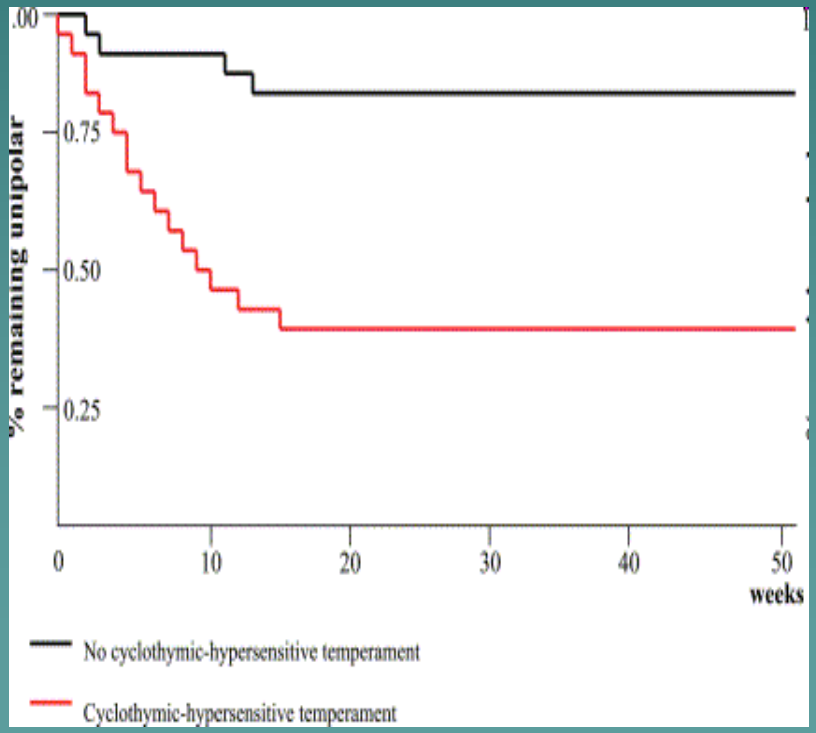
J Affect Disord. 2005 Mar;85(1-2):181-9.

Cyclothymic temperament as a prospective predictor of bipolarity and suicidality in children and adolescents with major depressive disorder.

Kochman FJ, Hantouche EG, Ferrari P, Lancrenon S, Bayart D, Akiskal HS.

Department of Child and Adolescent Psychiatry, Unit 59I13, 304 Avenue Motte, 59100 Roubaix, France. fkochman@voila.fr

- a naturalistic 2-year prospective study of 80 consecutive, clinically depressed children and adolescents
- assessed with Kiddie-SADS (Schedule for Affective Disorders and Schizophrenia for School-Age Children) semi-structured interview, according to DSM IV criteria, and a new questionnaire on cyclothymic-hypersensitive temperament (CHT) from the TEMPS-A cyclothymic scale adapted for children



- 64% of CHT+ developed BD vs. 15% of CHT- ($P < 0.0001$)
- total number of major depressive episodes: CHT+ vs. CHT- = 2.28 vs. 1.30 ($P < 0.0001$)
- total number of hypomanic or manic episodes: CHT+ vs. CHT- = 3.53 versus 0.48 ($P < 0.0001$)
- CGAS score: CHT+ 40.6 vs. CHR- 53.5 ($P < 0.001$)

J Affect Disord. 1998 Jan;47(1-3):1-10.

The semi-structured affective temperament interview (TEMPS-I). Reliability and psychometric properties in 1010 14-26-year old students.

Placidi GF, Signoretta S, Liguori A, Gervasi R, Maremmani I, Akiskal HS.

Institute of Psychiatry, University of Pisa, Italy.

J Affect Disord. 1998 Oct;51(1):7-19.

TEMPS-I: delineating the most discriminant traits of the cyclothymic, depressive, hyperthymic and irritable temperaments in a nonpatient population.

Akiskal HS, Placidi GF, Maremmani I, Signoretta S, Liguori A, Gervasi R, Mallya G, Puzantian VR.

International Mood Center, Department of Psychiatry, University of California, San Diego, USA. hakiskal@ucsd.edu

- A 32 item semi-structured affective temperament schedule of Memphis, Pisa, Paris and San Diego, Interview version (TEMPS-I)
- 1010 Italian students aged between 14 and 26

J Affect Disord. 2005 Mar;85(1-2):3-16.

TEMPS-A: progress towards validation of a self-rated clinical version of the Temperament Evaluation of the Memphis, Pisa, Paris, and San Diego Autoquestionnaire.

Akiskal HS, Akiskal KK, Haykal RF, Manning JS, Connor PD.

International Mood Center, La Jolla, CA 92161, USA. hakiskal@ucds.edu

- full-length version: 110 item (including depressive (D), cyclothymic (C), hyperthymic (H), irritable (I), and anxious (A) subscales)
- short version: 39 item

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TEMPS-I: exploratory factor analysis

	Factor 1	Factor 2
Depressive temperament	0.78	−0.55
Hyperthymic temperament	−0.93	−0.18
Cyclothymic temperament	0.37	0.90
Irritable temperament	0.06	−0.15
Eigenvalue	1.62	1.85
Percent variance	40.6	28.9

- *Hyperthymic temperament*
- *A central underlying cycloid temperament* (Kretschmer's hypothesis)

Akiskal et al, 1998

J Affect Disord. 2008 Apr;107(1-3):63-75. Epub 2007 Sep 19.

TEMPS-A (Rome): psychometric validation of affective temperaments in clinically well subjects in mid- and south Italy.

Pompili M, Girardi P, Tatarelli R, Iliceto P, De Pisa E, Tondo L, Akiskal KK, Akiskal HS.

Department of Psychiatry, Sant'Andrea Hospital, University of Rome La Sapienza, Rome, Italy. maurizio.pompili@uniroma1.it

Table 2
Principal Components Analysis

	Temperament traits	Dys–Cyc–Anx	Irritable	Hyperthymic
1	Sono una persona scontenta e triste *I am a sad, unhappy person*	.27	.23	−.29
2	La gente mi dice che non sono in grado di apprezzare il lato positivo delle cose *People tell me I am unable to see the lighter side of things*	.15	.20	−.18
3	Ho sofferto molto nella mia vita *I have suffered a lot in life*	.26	.11	−.02
4	Penso che spesso le cose si rivelano negative *I think things often turn out for the worst*	.39	.14	−.22
5	Mi arrendo facilmente *I give up easily*	.24	.11	−.36

- 3-factor structure of TEMPS-A
  - Dysthymic, Cyclothymic and Anxious temperaments combined (Dys–Cyc–Anx)
  - Irritable
  - Hyperthymic are respectively the second and the third factors.
- females show higher scores on Dys/Cyc/Anx scale and males on Hyperthymic scale.
- low rate of prevalence for Hyperthymia (.2%), whereas the prevalence is 2.7% for the Dys/Cyc/Anx, and 3.1% for Irritable.

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Jacopo Guido Massei[1,2], Alessandro Del Debbio[1,2,3], Mario Di Fiorino[1]
Якопо Гуидо Массеи, Алессандро Дель Деббио, Марио Ди Фиорино
[1] Department of Psychiatry, Versilia Hospital, Viareggio, Italy
[2] Department of Psychiatry, Neurobiology, Pharmacology and Biotechnology, University of Pisa, Pisa, Italy
[3] Harvard Bipolar Research Program, Massachusetts General Hospital, Boston, USA

Bipolar disorder: the role of affective temperaments and personality disorders

Биполярное расстройство: роль темперамента и расстройств личности

- 50 pts with BD
- Diagnosis confirmed by the administration of the Affective Disorders Evaluation (ADE)
- Assessment of temperament traits and personality disorders by the use of the TEMPS-A and the Personality Diagnostic Questionnaire (PDQ)

Correlation between TEMPS-A temperament dimensions

	Depressive Temperament	Cyclothymic Temperament	Hyperthymic Temperament	Irritable Temperament	Anxious Temperament
Depressive Temperament	1	,423(**)	-,423(**)	,373(**)	,723(**)
Cyclothymic Temperament	,423(**)	1	,153	,714(**)	,510(**)
Hyperthymic Temperament	-,423(**)	,153	1	,330(*)	-,240
Irritable Temperament	,373(**)	,714(**)	,330(*)	1	,504(**)
Anxious Temperament	,723(**)	,510(**)	-,240	,504(**)	1

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

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J Affect Disord. 2006 Dec;96(3):165-75. Epub 2006 Sep 25.

Endogenous and exogenous cyclicity and temperament in bipolar disorder: review, new data and hypotheses

Koukopoulos A, Sani G, Koukopoulos AE, Albert MJ, Girardi P, Tatarelli R.

Centro Lucio Bini, Rome, Italy. a.koukopoulos@fastwebnet.it

BP-I

- Mostly with hyperthymic temperament
- Greater mood stability during the intervals
- Only 25% of them, become continuous circular
- A smaller part of Bipolar I patients have dysthymic premorbid temperament and often suffer from mixed dysphoric manias

BP-II

- Mostly of cyclothymic type (with an alternation between excited periods very close to hypomania and slowed-down periods in which relationships and activities are restricted)
- Internal, endogenous factors seem to play a more important role in determining cyclicity
- Some have hyperthymic temperament, where hyperactivity and emotional vivacity do not present major variations over time.

J Affect Disord. 2010 Feb 1. [Epub ahead of print]

The influence of affective temperaments and psychopathological traits on the definition of bipolar disorder subtypes: A study on Bipolar I Italian National sample.

Perugi G, Toni C, Maremmani I, Tusini G, Ramacciotti S, Madia A, Fornaro M, Akiskal HS.

Department of Psychiatry, University of Pisa, Pisa, Italy; Institute of Behavioural Sciences, "G. De Lisio", Pisa, Italy.

106 BD-I patients

TEMPS-A
Separation Anxiety Symptom Inventory (SASI)
Interpersonal Sensitivity Measure (IPSM)
Semistructured Interview for Mood Disorder (SIMD-R)

Table 2
Factorial analysis (PCA extraction, Varimax solution) of TEMPS-A Depressive, Hyperthymic Cyclothymic and Irritable sub-scale scores, SASI total score) and IPSM total score in 89 BD I patients in remission.

	Cyclothymic-sensitive	Hyperthymic
Depressive temperament	**0.73**	**−0.43**
Hyperthymic temperament	0.03	**0.89**
Cyclothymic temperament	**0.71**	−0.21
Irritable temperament	**0.82**	0.26
SASI total	**0.36**	**−0.48**
IPSM total	**0.81**	−0.21
Eingenvalue	2.76	1.14
% of variance	46.1	19.0

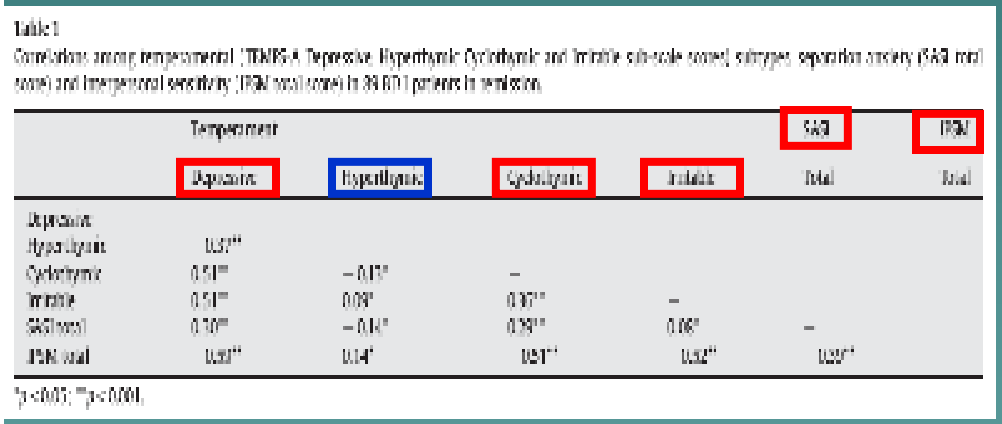


Table 1
Correlations among temperamental (TEMPS-A Depressive, Hyperthymic Cyclothymic and Irritable sub-scale scores), subtypes separation anxiety (SASI total score) and interpersonal sensitivity (IPSM total scores) in 89 BD I patients in remission.

	Temperament				SASI	IPSM
	Depressive	Hyperthymic	Cyclothymic	Irritable	Total	Total
Depressive						
Hyperthymic	0.37**					
Cyclothymic	0.51**	−0.17*	–			
Irritable	0.51**	0.09*	0.37**	–		
SASI total	0.70**	−0.14*	0.39**	0.46**	–	
IPSM total	0.52**	0.14*	0.51**	0.52**	0.59**	

*p<0.05; **p<0.001.

- Hyperthymic: characterized by hyperactivity, high level of energy and emotional intensity

Affective Temperamental Dispositions
- Depressive–Cyclothymic–Anxious–Irritable (Cyclothymic):
- female gender overrapresentated
- prevalently depressive course, with more depressive and hypomanic episodes
- more suicide attempts
- more Axis I comorbidity with Panic/Agoraphobia, Social Anxiety Dis, separation anxiety and EDs
- meeting more frequently DSM-IV criteria 1,5,7 for borderline

Psychiatr Clin North Am. 2002 Dec;25(4):713-37.

The soft bipolar spectrum redefined: focus on the cyclothymic, anxious-sensitive, impulse-dyscontrol, and binge-eating connection in bipolar II and related conditions.

Perugi G, Akiskal HS.

Institute of Behavioral Sciences G. De Lisio, Viale Monzone 3, 54031 Carrara, Italy. g.perugi@psico.med.unipi.it

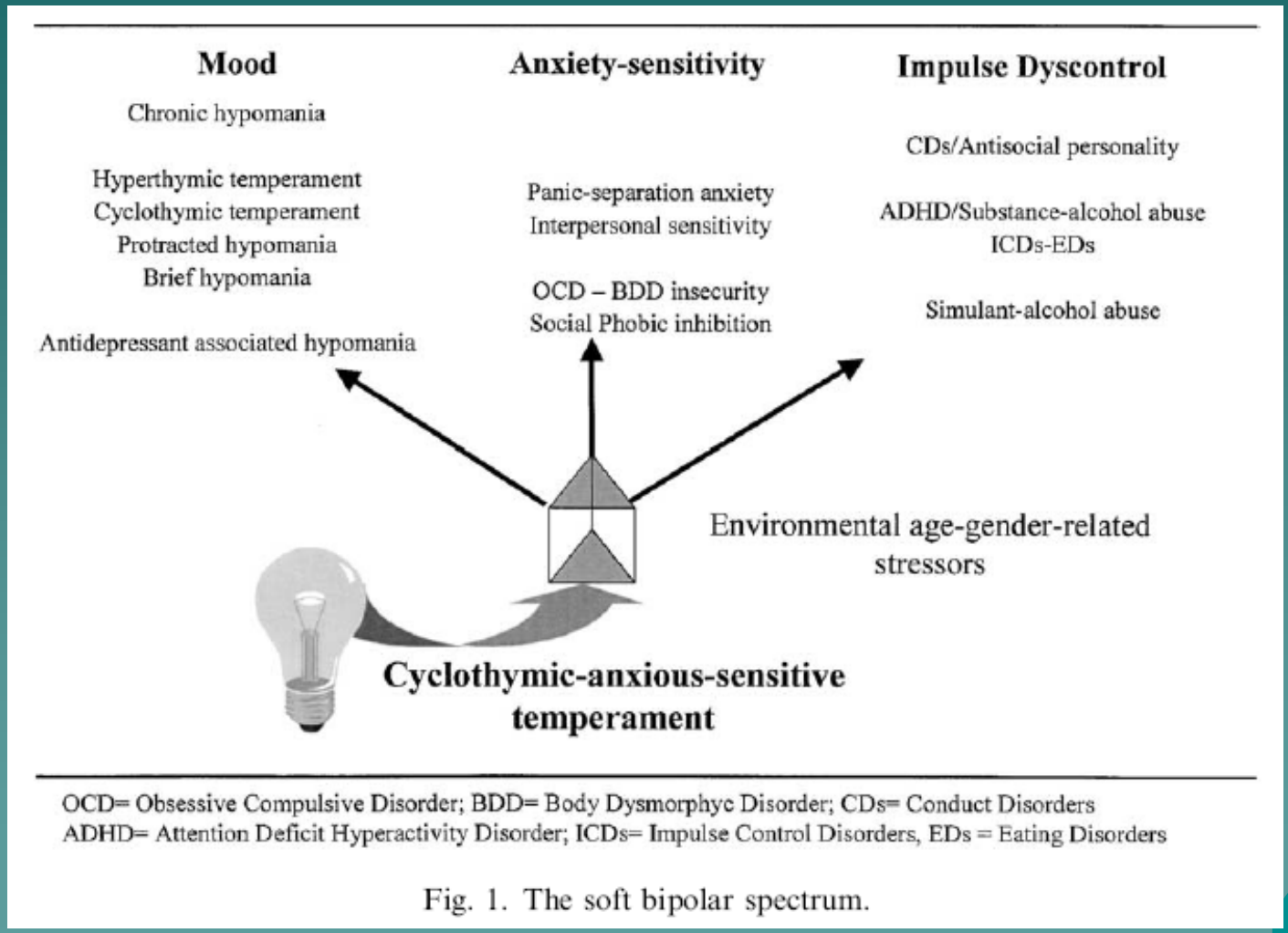


Fig. 1. The soft bipolar spectrum.

Hans Eysenck's system of personality dimensions

3 factor analytically derived dimensions

- Neuroticism
- Extraversion
- Psychoticism

Eysenck HJ: The structure of human personality. London, Methuen, 1953

The "Big Five"

1. Extraversion: outgoing, positive emotionality
2. Agreeableness: warmth, sociability
3. Conscientiousness: responsible, impulsivity
4. Neuroticism: anxious, negative emotionality
5. Openness: inquiring, intellectuality

Costa PT Jr, McCrae RR: The five-factor model of personality and its relevance to personality disorders. J Personal Disord 6:343-359, 1992

Premorbid personologic features of patients with depression

	Cognitive	Hostile	Anxious	Emotional	Interpersonally sensitive	Other
Nystrom and Lindegaard 1975	(Ruminative)	(Irritable)	+			Shy, lacks endurance
Angst and Clayton 1986		–	+	(Excitable)		Subordinative
Hirschfeld et al. 1989	(Thoughtful)		(Neuroticism)	+		Dramatic
Boyce et al. 1991			(Neuroticism)		+	
Ernst et al. 1992		+	+		+	

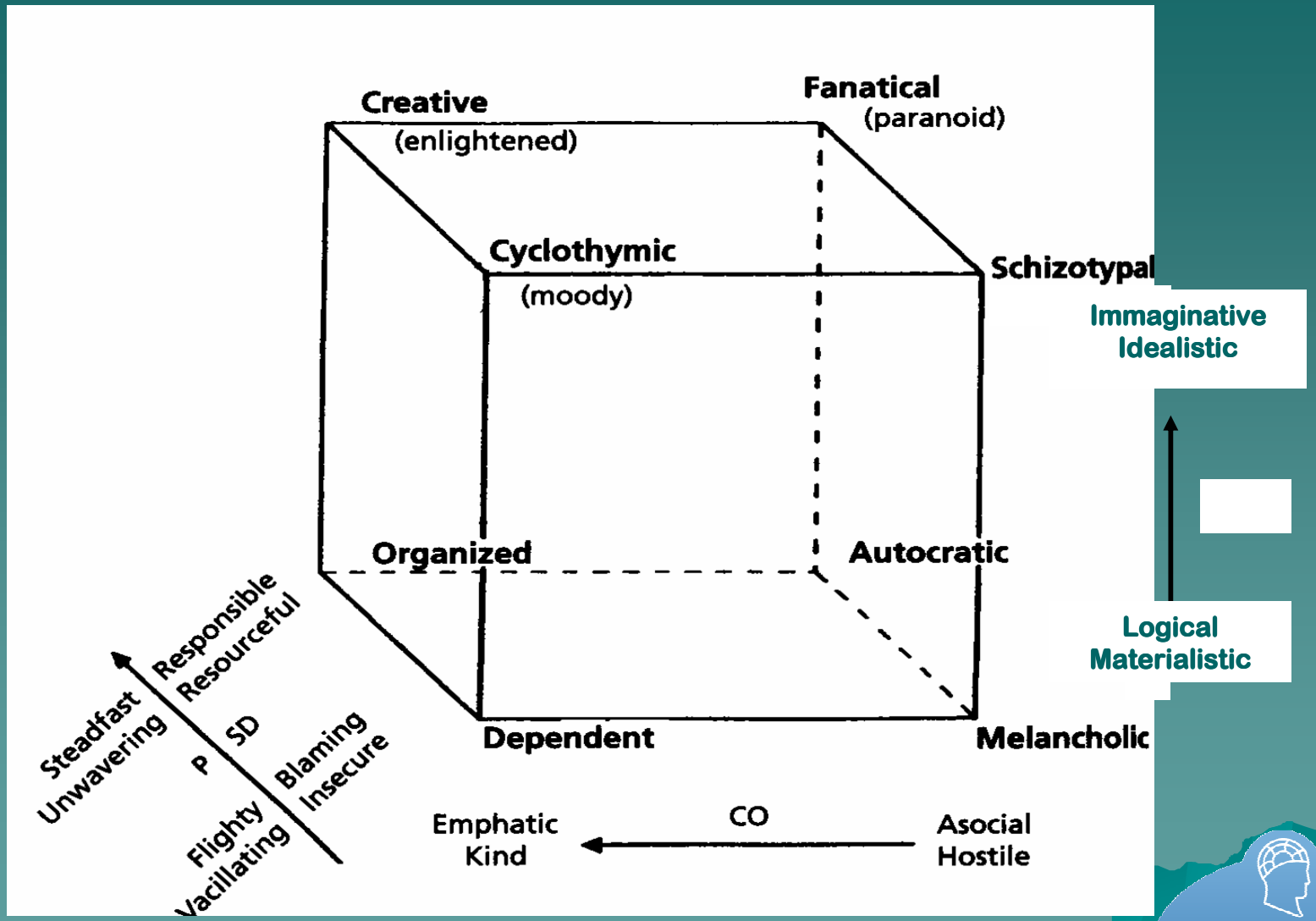
Cloninger CR. Personality and psychopathology. American Psychopathological Association Series, 1999

The dimensions of temperament and character according to Cloninger

Temperamental traits	Biological correlation
Harm avoidance (HA)	Serotonergic system
Novelty seeking (NS)	Dopaminergic system
Reward dependence (RD)	Noradrenergic system
Persistence (P)	
Characterial traits	
Self-directedness (SD)	
Cooperativeness (CO)	
Self-transcendence (ST)	

(Cloninger et al. 1993, 1994)

The character cube



(Cloninger et al. 1993, 1994)

J Affect Disord. 2005 Mar;85(1-2):17-27.

The relationship of Kraepelian affective temperaments (as measured by TEMPS-I) to the tridimensional personality questionnaire (TPQ).

Maremmani I, Akiskal HS, Signoretta S, Liguori A, Perugi G, Cloninger R.

Department of Psychiatry, Neurobiology, Pharmacology and Biotecnology, University of Pisa, Via Roma, 67, 56100, Pisa, Italy. maremman@psico.med.unipi.it

1,010 students aged 14 to 26

TPQ

Table 1
Temperamental personality dimensions in dominant affective temperament groups

TPQ scales	Dominant affective temperament groups				F	P
	DT $n=283$ Mean ± S.D.	HT $n=446$ Mean ± S.D.	CT $n=221$ Mean ± S.D.	IT $n=60$ Mean ± S.D.		
Novelty Seeking[a]	15.4 ± 4.6	18.0 ± 4.8	17.7 ± 4.8	17.2 ± 3.6	19.09	0.000
Harm Avoidance[b]	18.2 ± 5.8	13.0 ± 5.6	17.1 ± 5.8	14.5 ± 5.6	54.62	0.000
Reward Dependence	12.8 ± 3.2	13.4 ± 2.8	13.4 ± 3.2	12.7 ± 3.4	2.90	0.033
Persistence	5.6 ± 2.0	5.4 ± 1.9	5.4 ± 1.8	5.3 ± 1.9	0.71	0.543

DT, Depressive Temperament; HT, Hyperthymic Temperament; CT, Cyclothymic Temperament; IT, Irritable Temperament. Scheffé's F test.
[a] HT, CT>DT.
[b] DT, CT>HT, IT.

Canonical correlations between TEMPS-I and TPQ dimensions

	Variate 1	Variate 2
Depressive Temperament	0.536	0.037
Hyperthymic Temperament	− 0.588	0.300
Cyclothymic Temperament	0.056	1.094
Irritable Temperament	− 0.073	0.193
Pct Var	39.59	25.58
Novelty Seeking	− 0.374	0.826
Harm Avoidant	0.855	0.548
Reward Dependence	− 0.129	0.223
Persistence	0.092	− 0.060

DT

'shyness with strangers', 'stoic rigidity', 'detachment', 'fear of uncertainty', 'reflection', 'anticipatory worry'

HT

'gregariousness', 'exploratory excitability', 'uninhibited optimism', 'attachment', 'confidence', 'extravagance', 'independence', 'vigor', 'impulsiveness'

CT

'anticipatory worry', 'disorderline
'sentimentality', 'fatigability'

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J Affect Disord. 2005 Mar;85(1-2):17-27.

The relationship of Kraepelian affective temperaments (as measured by TEMPS-I) to the tridimensional personality questionnaire (TPQ).

Maremmani I, Akiskal HS, Signoretta S, Liguori A, Perugi G, Cloninger R.

Department of Psychiatry, Neurobiology, Pharmacology and Biotecnology, University of Pisa, Via Roma, 67, 56100, Pisa, Italy. maremman@psico.med.unipi.it

- The configurations of the TPQ dimensions reveal differences between the four affective temperaments:

a. HA and depressive disposition
b. NS and hyperthymic attributes
c. both HA and NS with respect to CT

- Hyperthymic novelty seekers are likely to be 'sanguine' or of 'sunny' disposition and to be over-represented in those who succeed in position requiring interpersonal skills, drive and risk taking

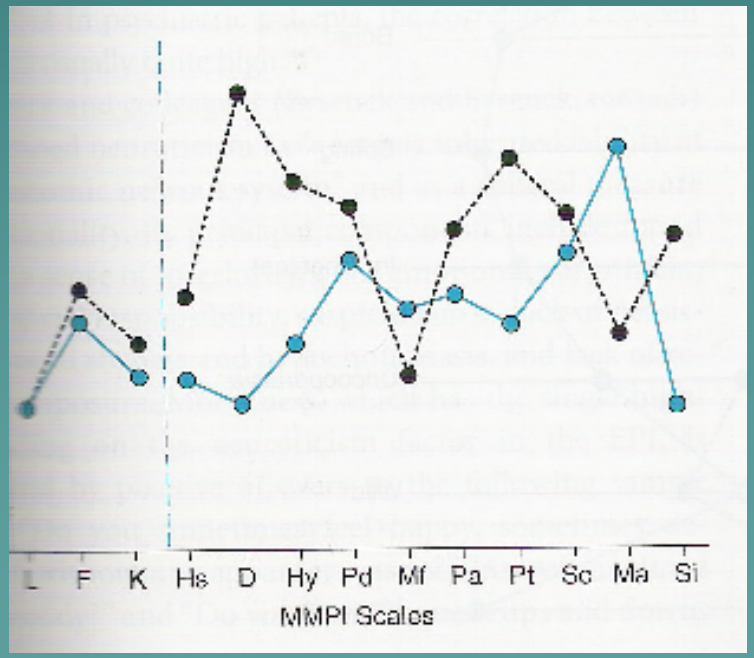
- A cyclothymic novelty seeker would be expected to engage in excessive rule breaking, which would alienate others and could even result in legal difficulties

- Cyclothymic individuals with high harm avoidance traits could be described as individuals with the 'darkest' disposition and prone to dysphoric episodes and impulsive suicide attempts

Personality during mania and depression

- Not a core, stable personality
- The powerful influence of fluctuating mood and energy levels, as well as behavioral changes, brought about by the illness

Comparisons between Manic/Depressive Episodes and periods of remission



Mean Minnesota Multiphasic Personality Inventory (MMPI) profile of bipolar probands during

- a hypomanic/manic phase (blue circle)
- a depressive phase (black circle)

Lumry et al. MMPI state dependency during the course of bipolar psychosis. Psychiatry Res. 1982 Aug;7(1):59-67.

Comparisons between Manic/Depressive Episodes and periods of remission

- significant decreases in neuroticism from depression to remission
- significant increases in extraversion from depression to remission

- Neuroticism capture two elements:

- a depressive-state influence

- an underlying vulnerability dimension that predicts the development and severity of depression

Clark et al. Temperament, personality, and the mood and anxiety disorder
J Abnorm Psychol. 1994 Feb;103(1):103-16.

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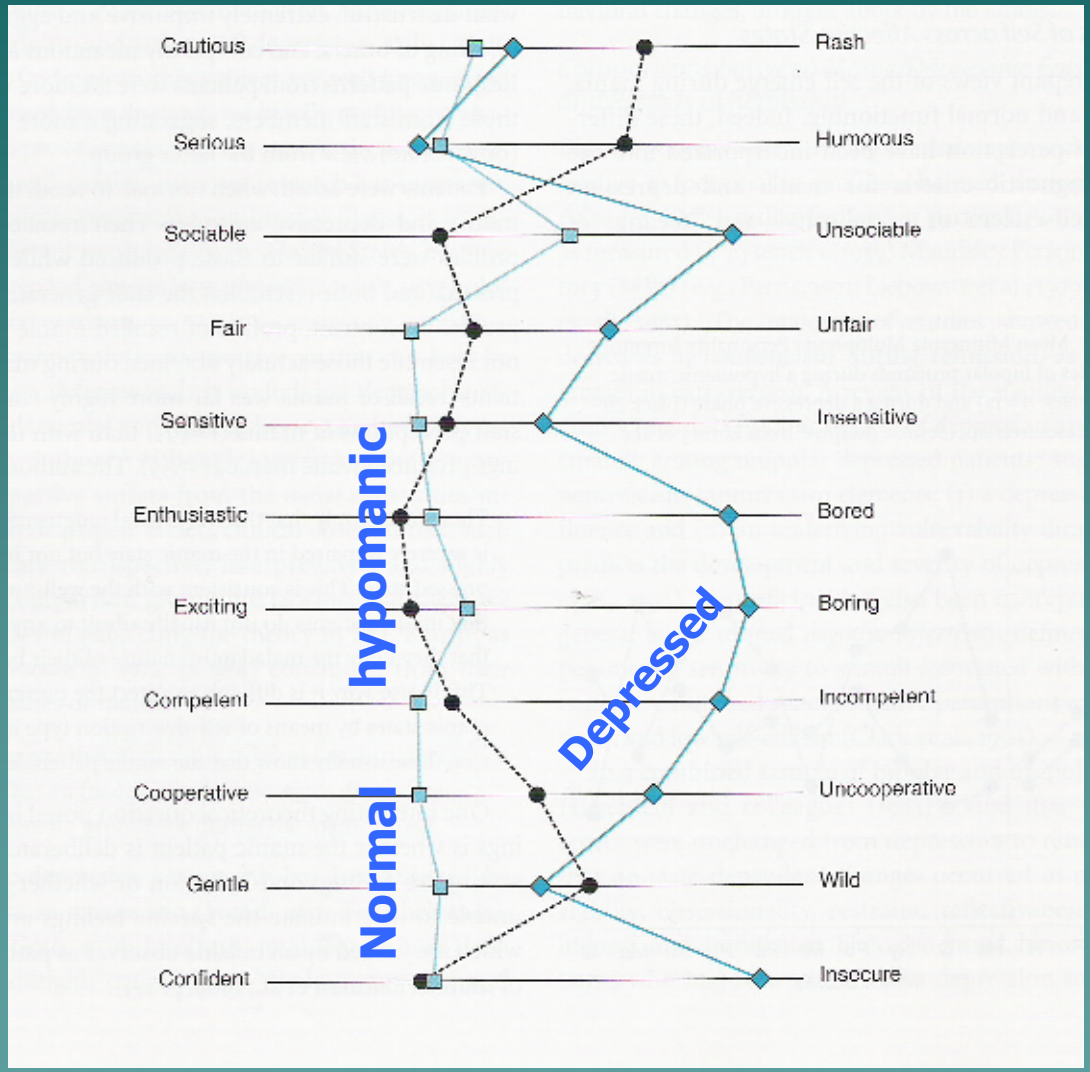
Perception of self across affective states



Jamison et al., unpublished data

J Affect Disord. 2009 Jan;112(1-3):19-29. Epub 2008 May 1.

Towards a genetically validated new affective temperament scale: a delineation of the temperament phenotype of 5-HTTLPR using the TEMPS-A.

Gonda X, Fountoulakis KN, Rihmer Z, Lazary J, Laszik A, Akiskal KK, Akiskal HS, Bagdy G.

Department of Pharmacology and Pharmacotherapy, Semmelweis University, Faculty of Medicine, Kutvolgyi Clinical Centre,1089 Budapest Nagyvarad ter 4, Hungary. kendermagos@yahoo.com

Aim: to investigate the association of the 5-HTTLPR s allele of the serotonin transporter gene with scales, subscales and individual items within the TEMPS-A questionnaire in a healthy population

Hypothesis: subjects carrying the s allele of the 5-HTTLPR score significantly higher on scales measuring those affective temperament which by definition carry a depressive component and are part of the depressive superfactor, that is, the depressive, cyclothymic, irritable and anxious temperaments

Method: 138 psychiatrically healthy women completed the TEMPS-A questionnaire and were genotyped for 5-HTTLPR. Scores of subjects on the temperament scales, subscales and items in the three genotype (ss, sl, ll) and the two phenotype groups (subjects carrying and not carrying the s allele) were compared using ANOVA.

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Results: Subjects in the different 5-HTTLPR genotype and phenotype groups have significantly different score on scales measuring depressive, cyclothymic, irritable and anxious temperaments, and several subscales composing these temperamental scales

The items composing the 5-HTTLPR Genotype Derived Scale
23C–I get sudden shifts in mood and energy
29C–My mood often changes for no reason
32C–I sometimes go to bed feeling great and wake up in the morning feeling life is not worth living
38C–The way I see things is sometimes vivid, but at other times lifeless
64I–I am a grouchy (irritable) person
73I–People tell me I blow up out of nowhere
77I–I can get so furious I could hurt someone
107A–I am an insecure person

The items composing the 5-HTTLPR Phenotype Derived Scale
4D–I think things often turn out for the worst
7D–I have always blamed myself for what others might consider no big deal.
24C–My moods and energy are either high or low, rarely in between.
29C–My mood often changes for no reason.
68I–I often feel on edge.
69I–I often feel wound up.
94A–I often have an upset stomach.
100A–I'm always thinking someone might break bad news to me about a family member.
107A–I'm an insecure person.

Results: Subjects in the different 5-HTTLPR genotype and phenotype groups have significantly different score on scales measuring depressive, cyclothymic, irritable and anxious temperaments, and several subscales composing these temperamental scales

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Take-home messages

- Temperament, which has a more constitutional, biological basis than personality, represents the core characteristics of manic-depressive illness

- Affective temperaments reflect the milder manifestations of the bipolar spectrum

- Personality functioning shows differences across mood states

- A distinction of the Bipolar Disorders according to temperament could be more useful than the actual Bipolar I–Bipolar II distinction:

hyperthymic-novelty seeking phenotype, with a 'sanguine', 'sunny' disposition

cyclothymic-anxious-sensitive phenotype, with mood reactivity, interpersonal sensitivity, and ranging from mood, anxiety, impulse control and eating disorders

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