

**ALGER, 12-13 Mai 2005**

**Première Rencontre Franco-Algérienne  
sur les Troubles Bipolaires**

**2<sup>ème</sup> Congrès de la SFAP**



# **Sub-types of Bipolar Disorders: Current Epidemiological & Clinical Pictures**

**Elie-G. HANTOUCHE, MD**

**Pitie-Salpêtrière Hospital, Paris, France**

**ALGER, 12-13 Mai 2005**

**First Franco-Algerian Meeting on Bipolar Disorder**

# Most patients report having been mis-diagnosed (USA)

National Depressive and Manic Depressive Association (NDMDA) surveyed members with bipolar disorder

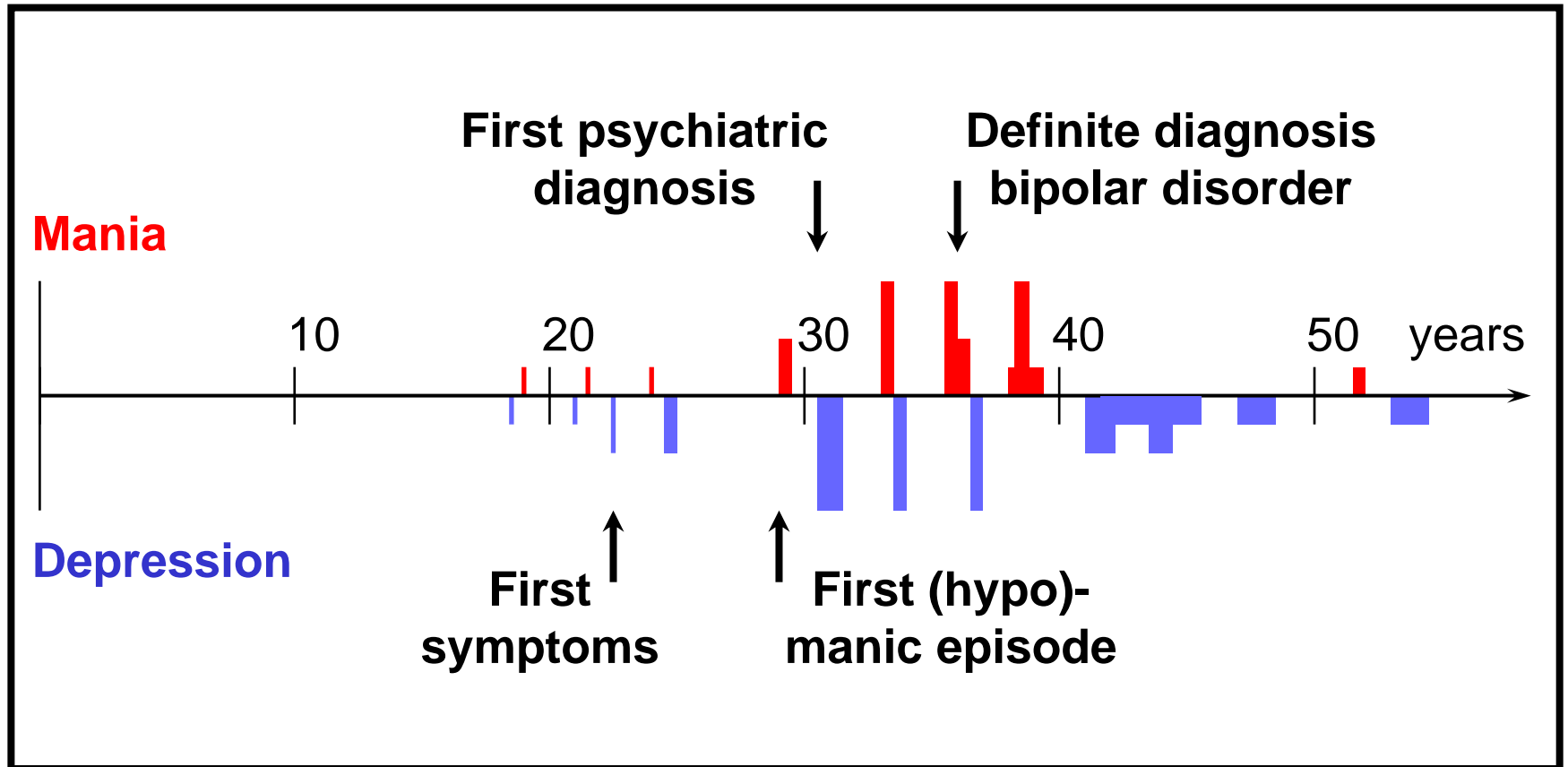
	1994	2000
Misdiagnosis (%)	73	69
Most frequent misdiagnosis	Unipolar depression	Unipolar depression
Without correct diagnosis* for $\geq 10$ years (%)	24	35

- Mean age of onset early 20s
- Long delays before correct diagnosis
- Rates of misdiagnosis have remained high

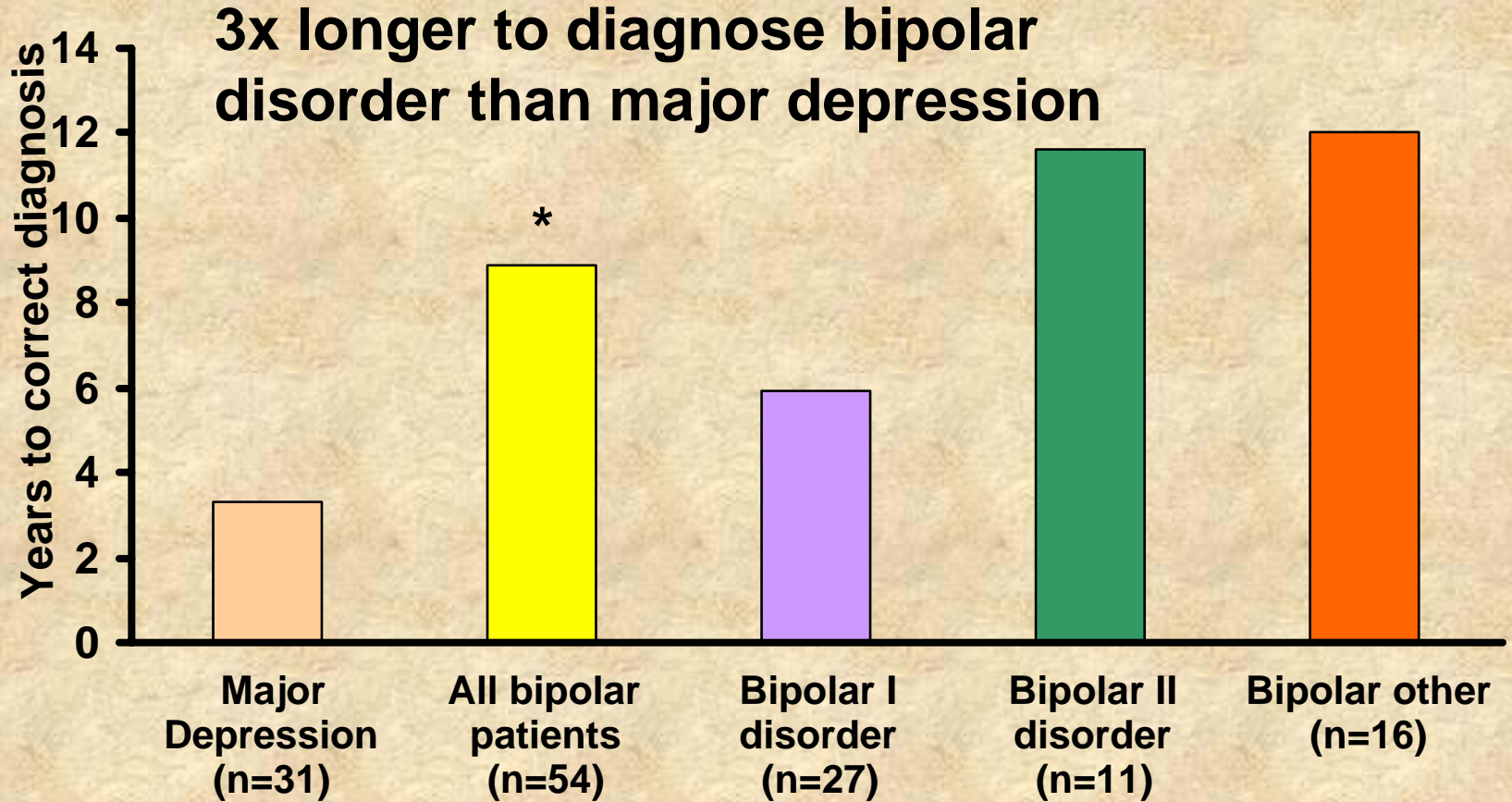
\*Bipolar disorder

Lish JD, et al. J Affect Disord 1994;31:281–94  
Hirschfeld RMA, et al. J Clin Psychiatry 2003;64:161–74

# Diagnostic delay in bipolar disorder: Typical pattern



# Time to diagnosis



\*p=0.003 vs major depression

# Bipolar Disorders

- **Major problem : Under-/ Misdiagnosis +++**
- **High frequency rate:** more than 50% of all Major Depressive Episodes
- **Complex and instable clinical picture**
- **Associated risks:** behavioral problems at school age, anxiety comorbidity, suicide, offending behavior, hospitalizations, recurrence, disability, chronic physical disease, worsening by antidepressants...
- **Lack of evidence or experts consensus** for appropriate treatment of acute BP-II Depression and long term management of the soft BP spectrum (BP-II, BP-II1/2, BP-III, and BP-IV)

# DSM-IV Bipolar Disorder

---

- Schizoaffective disorder, bipolar type
- BD I
- BD II
- Cyclothymia
- BD NOS
  - Recurrent or sporadic brief hypomania (>several hours <4 days)
  - Medication-induced hypomania
  - Substance-induced hypomania
  - Recurrent depression (± a family history of mania/hypomania)

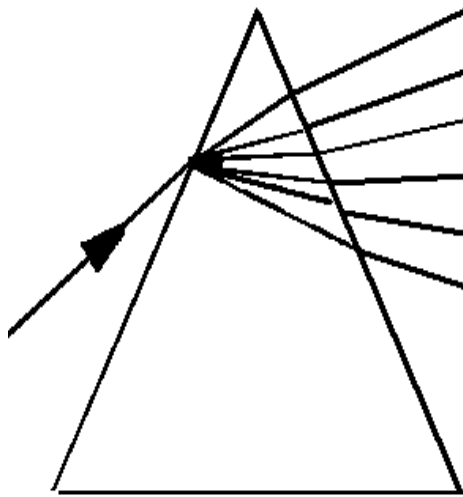
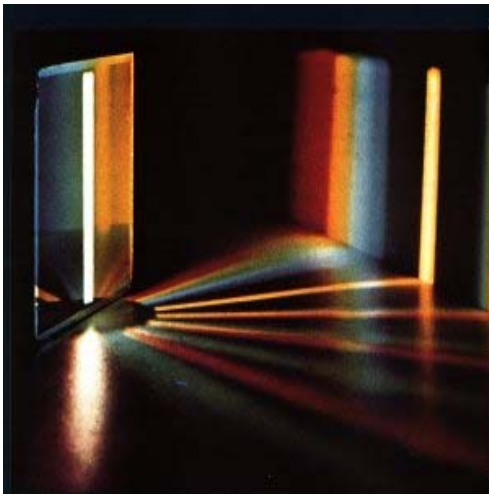
# Bipolar disorder is a highly prevalent illness

## Life time prevalence

- **Bipolar I disorder** **0.2-1.6%**
- **Bipolar spectrum disorder** **3-7%**
  - Bipolar I disorder
  - Bipolar II disorder
  - Cyclothymia
  - Bipolar disorder NOS
  - secondary mania (somatic illness, drugs)

# Methodological factors influencing rates of Bipolarity

- **Breadth of criteria**
- **Instruments used**
- **Lay vs clinical interviewers**
- **Population studied**
- **Sample size**
- **Single vs repeated observations**
- **Interview of patient vs relatives**
- **Timing of interview relative to phase of illness**



$\lambda$  (cm)

$7 \times 10^{-5}$

Rosso

Arancio

$6 \times 10^{-5}$

Giallo

Verde

$5 \times 10^{-5}$

Blu

Indaco

$4 \times 10^{-5}$

Viola

**...distinction apparemment qualitative  
dérivant d'un continuum quantitatif.**

# The Mood Spectrum

psychotic

mood congruent or  
mood incongruent

D

Dm

DM

Md

M

non-psychotic

D

DM

M

Dm

Md

subthreshold

d

dm

m

“normal“

dsx

dmsx

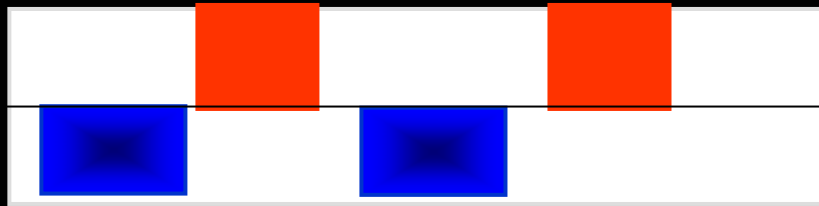
msx

# Bipolar Spectrum

- **Bipolar 1/2**                      **Psychosis, depression and mania**
- **Bipolar I**                              **Mania**
- **Bipolar I - 1/2**                      **Protracted hypomania**
- **Bipolar II**                              **Depression + hypomania (4 D or +)**
- **Bipolar II - 1/2**                      **Cyclothymic depression**
- **Bipolar III**                              **Pharmacologic hypomania**
- **Bipolar III - 1/2**                      **Hypomania + alcohol/stimulants**
- **Bipolar IV**                              **Hyperthymia + depression**

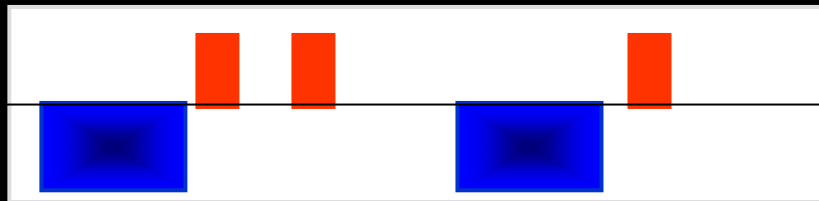
*(modified from Akiskal et Pinto, 1999)*

# Spectre Clinique Bipolaire



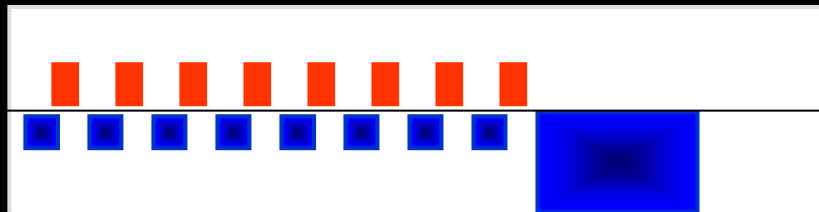
## Trouble Bipolaire type I :

Présence d'au moins un épisode maniaque



## Trouble Bipolaire type II :

Dépression majeure avec des épisodes hypomaniaques spontanés



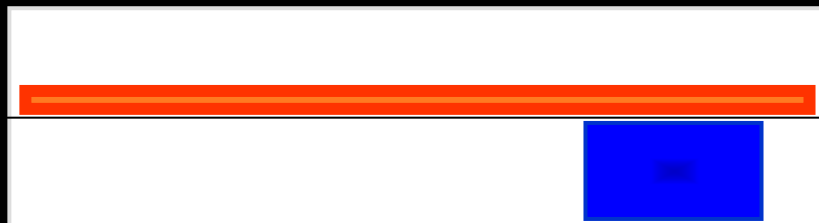
## Trouble Bipolaire type II 1/2 :

Dépression majeure avec cyclothymie



## Trouble Bipolaire type III :

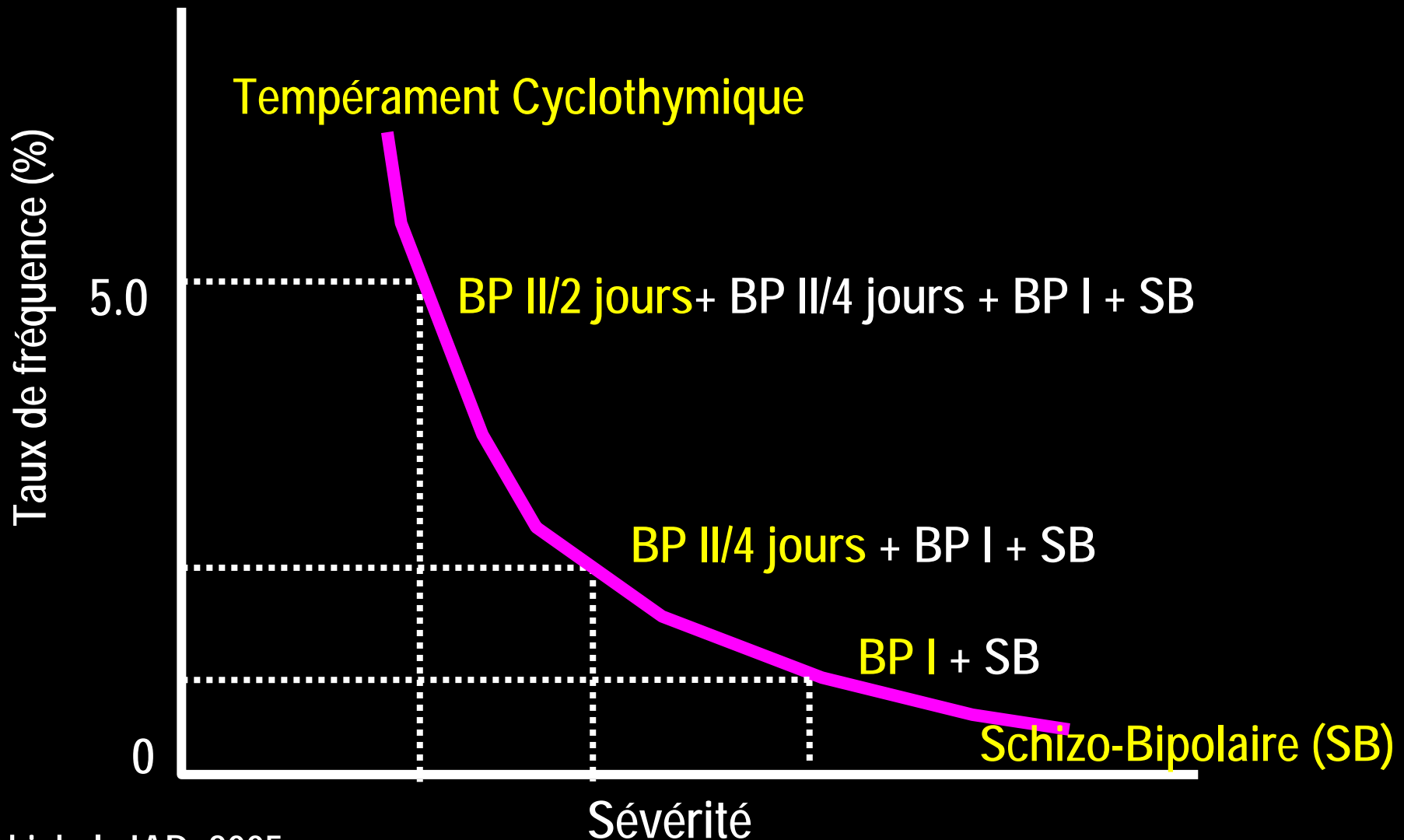
Dépression majeure avec ou manie hypomanie induite par le traitement



## Trouble Bipolaire type IV :

Dépression majeure avec tempérament hyperthymique

# Prévalence des phénotypes bipolaires en fonction de la sévérité



# The challenge: hypomania as specifier for bipolar-II and minor bipolar depression

## DSM-IV criteria

- Mood symptoms
- 3 / 4 of 7 symptoms
- Duration:  $\geq 4$  days

## Zurich strict criteria

- Overactivity
- 3 of 7 symptoms
- Duration:  $\geq 1$  day
- Consequences

## Zurich broad criteria

- Overactivity
- 2 of 7 symptoms
- Duration:  $\geq 1$  day

**Dépression =  
Masque le plus  
trompeur  
de la bipolarité**



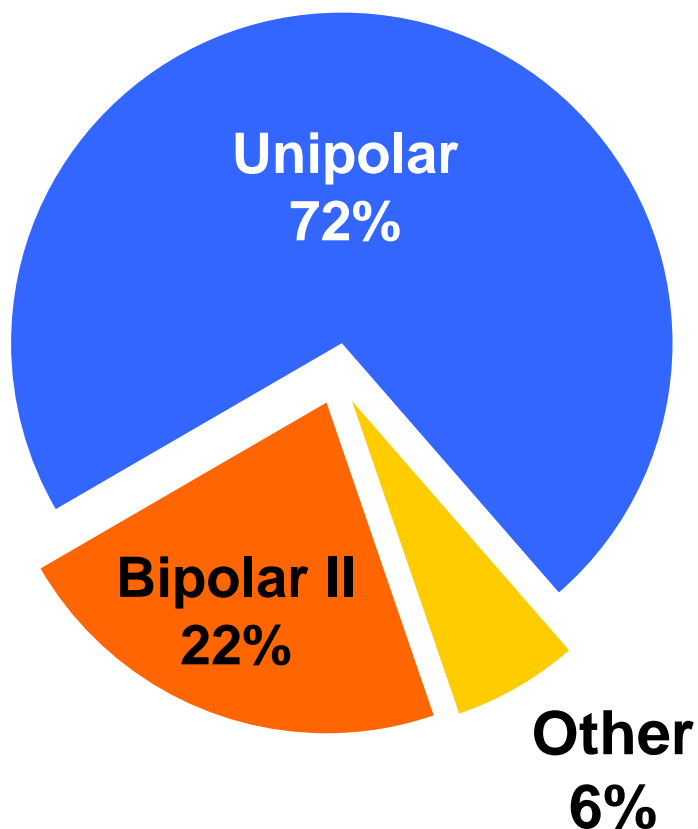
# How many major depressives are bipolars?

## Patient studies

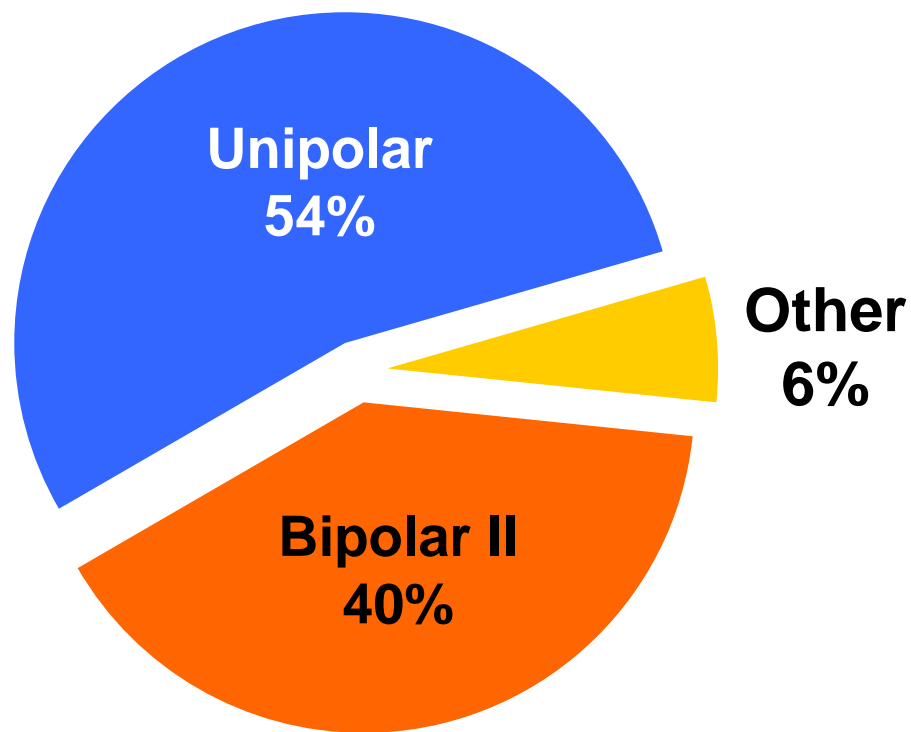
	Proportion of bipolar II (%)
Akiskal, et al. 1987	50
Cassano, et al. 1992	30
Dunner, et al. 1993	38
Manning, et al. 1999	39
Allilaire, et al. 2001 (EPIDEP)	40
Akiskal, et al. 2003	56
Benazzi, et al. 2003	60
Review of Akiskal 2002	27–65

# Under-recognition of bipolar II in patients presenting with major depression (France)

**Visit 1 (n=537)**  
**First diagnosis**



**Visit 2 (n=493)**  
**Systematic evaluation of hypomania**



Hantouche EG, et al. J Affect Disord 1998;50:163-73  
Allilaire JF, et al. Encephale 2001;27:149-58

# The challenge: hypomania as specifier for bipolar-II and minor bipolar depression

## DSM-IV criteria

- Mood symptoms
- 3 / 4 of 7 symptoms
- Duration:  $\geq 4$  days

## Zurich strict criteria

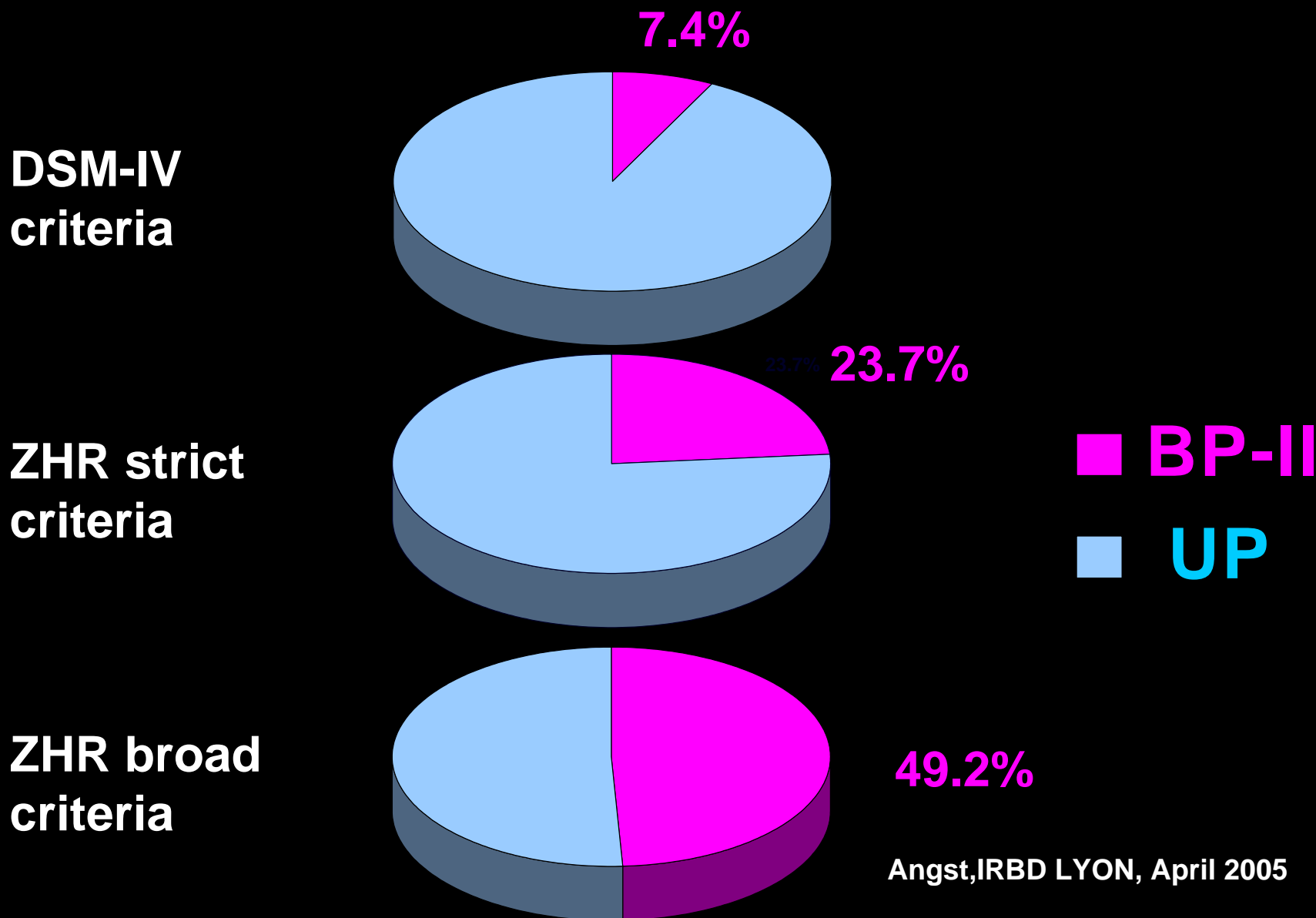
- Overactivity
- 3 of 7 symptoms
- Duration:  $\geq 1$  day
- Consequences

## Zurich broad criteria

- Overactivity
- 2 of 7 symptoms
- Duration:  $\geq 1$  day

# BP-II as % of major depressive episodes

Age 40/41 years

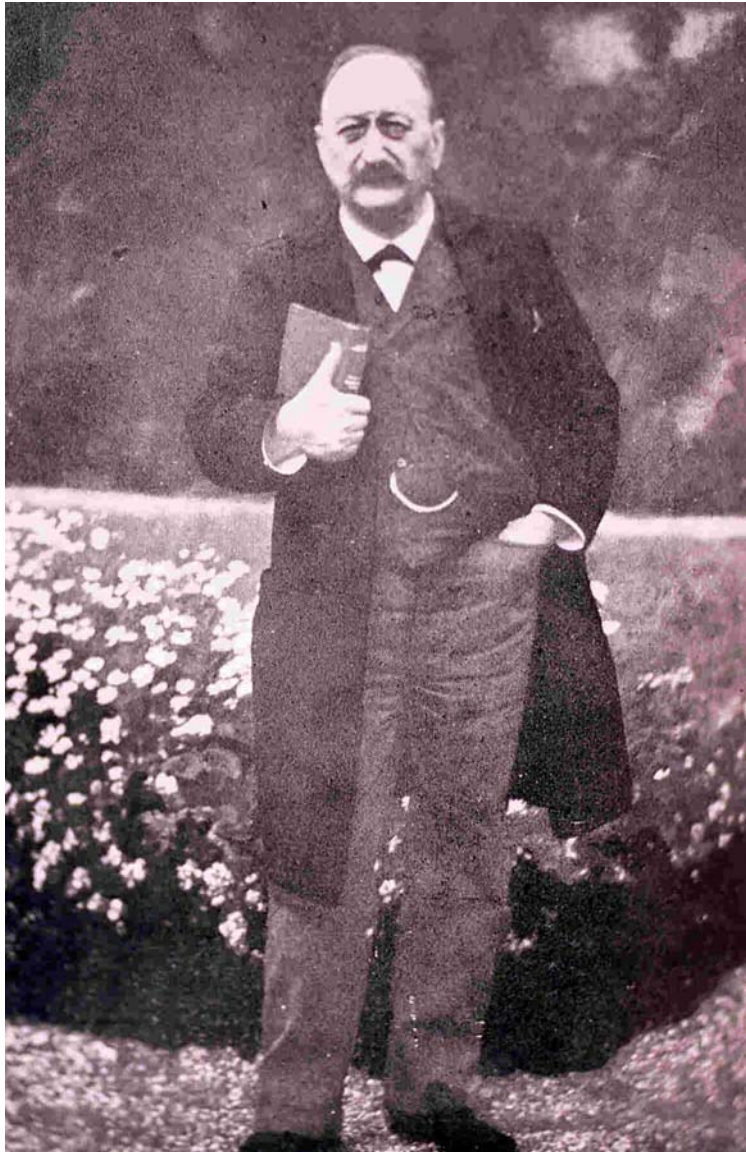


# Towards a re-definition of subthreshold bipolarity

- Hyperactivity as major criteria for the Dx of hypomania. Together with euphoric or irritable mood
- Hypomanic symptoms when in alternation with Major or “Minor” Depression = Bipolarity
- “New” definition of Bipolar II : prevalence **10.9%**
- “Minor” Bipolar Disorder or Temperamental manifestations: prevalence of **12.8%**
- Bipolar Spectrum: **23.7%**
- Criteria for hypomania needs redefinition

# Classification of Bipolar Disorder

## By Ritti, 1880



- **First degree: Melancholic states with simple exaltation (TYPE I)**

- **Second degree: melancholic states with frank acute mania (psychotic features)**

**(TYPE II)**

**Before Ritti, similar classification in a medical thesis by Geoffroy, 1861**

**Hantouche, “Double Folie”  
In press, Odile Jacob, Paris**

# Dual diagnosis: high prevalence of comorbid psychiatric disorders

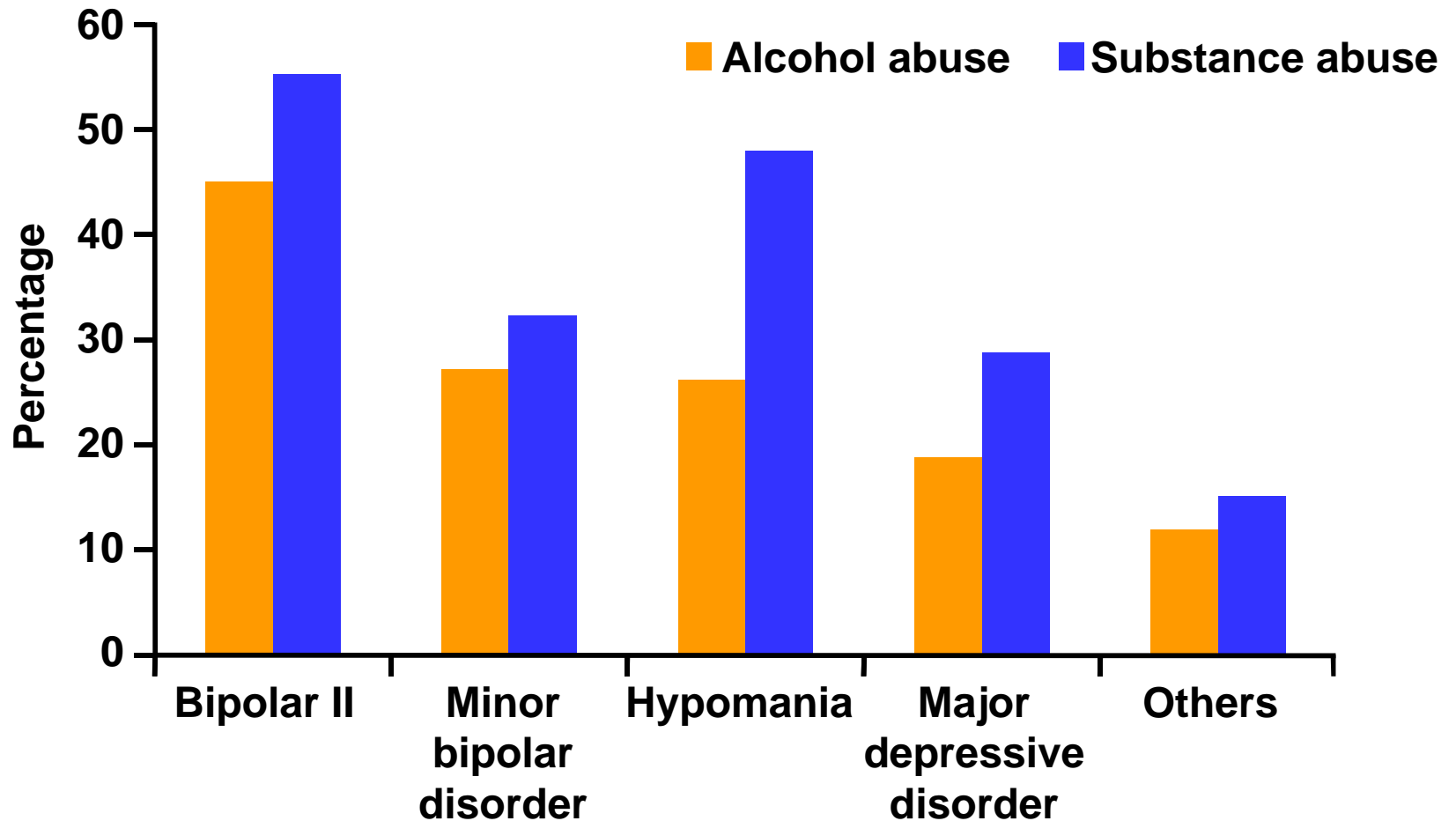
## Lifetime comorbidity with BPI disorder

Disorder	Prevalence (%)	Odds ratio
Generalised anxiety disorder	42.4	14.0*
Social phobia	47.1	5.9*
Panic disorder	32.9	14.0*
PTSD	38.7	8.9*
Any anxiety disorder	93.0	34.8*
Alcohol dependence	61.2	9.8*
Drug dependence	40.6	8.6*
Any substance use disorder	71.1	6.9*
Dysthymia	49.7	14.9*
Conduct disorder	59.5	10.0*

\*p<0.05

Kessler RC. In: Tohen M, editor. Comorbidity in Affective Disorders. New York: Marcel Dekker, Inc., 1999. p.1–26

# Comorbidity of alcohol and substance abuse in psychiatric disorders



# Abus Multiples

**Cocaïne**  
**Stimulants**

**Alcool**  
**Cannabis**

**Opiacés**  
**Sédatifs**  
**Antalgiques**

**HYPOMANIE**

**MANIE**

**ETAT MIXTE**

**DEPRESSION**

Himmelhoch et al., 1976; Estroff et al., 1985; Mirin et al., 1988;  
Brady & Sonne, 1995; Winokur et al., 1995; Maremmani et al., 2000



Hypomanie  
Hypophorie



**CRAVING  
(DESIR DE LA  
SUBSTANCE)**

**USAGE  
COMPULSIF**

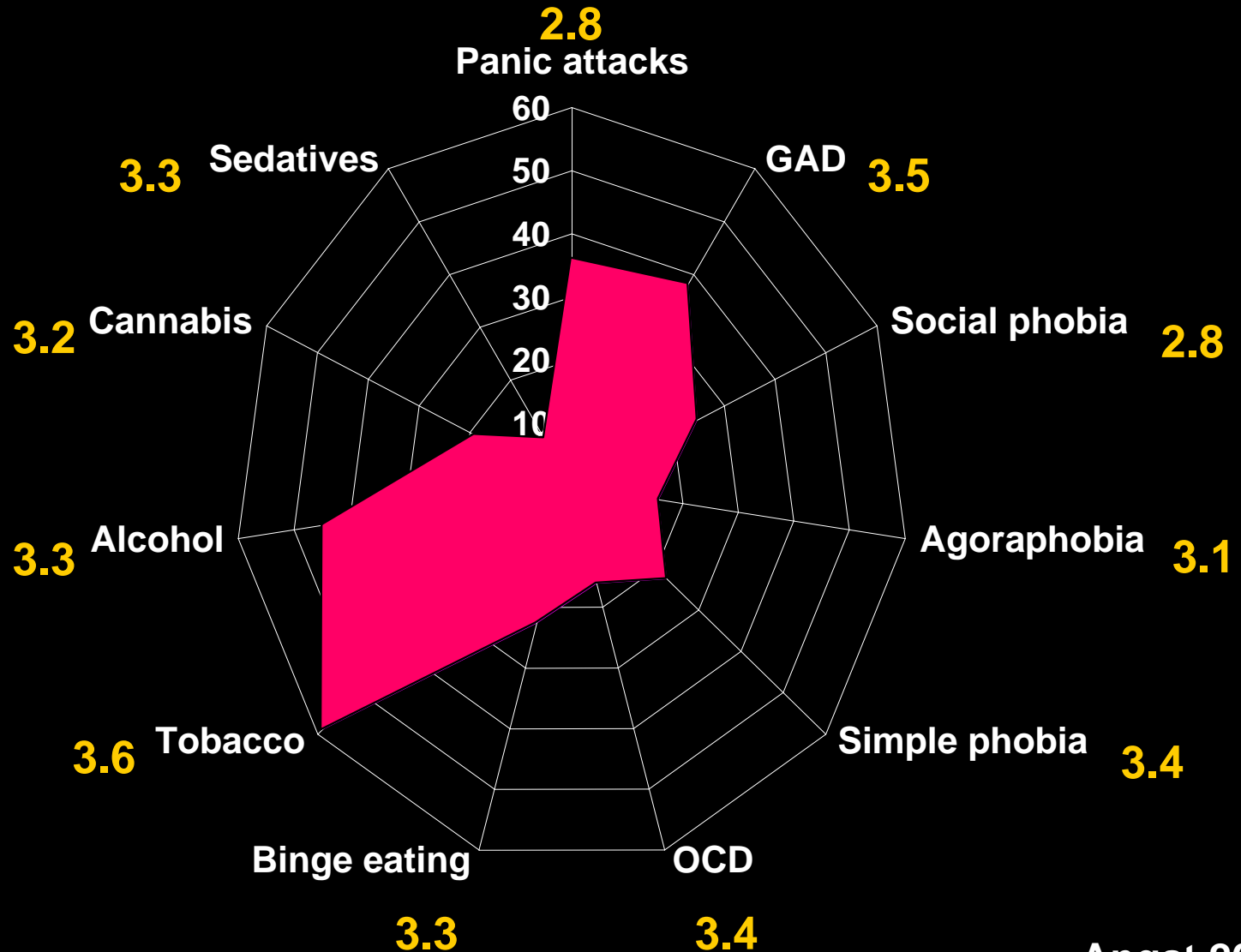
**ADDICTION  
COMPULSIVE**



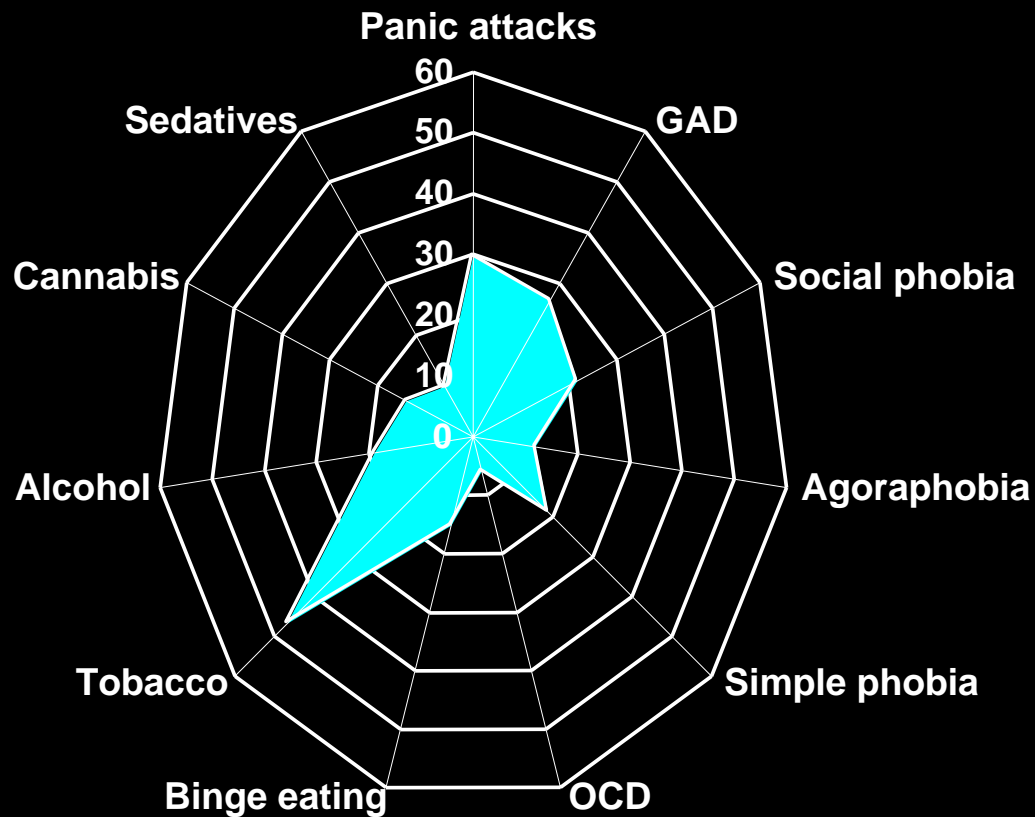
**COMPORTEMENT ADDICTIF**

# Comorbidity of BP-II (N=89)

Numbers are Odds Ratios, adjusted for stratified sampling



# Comorbidity of MDD (N=101)

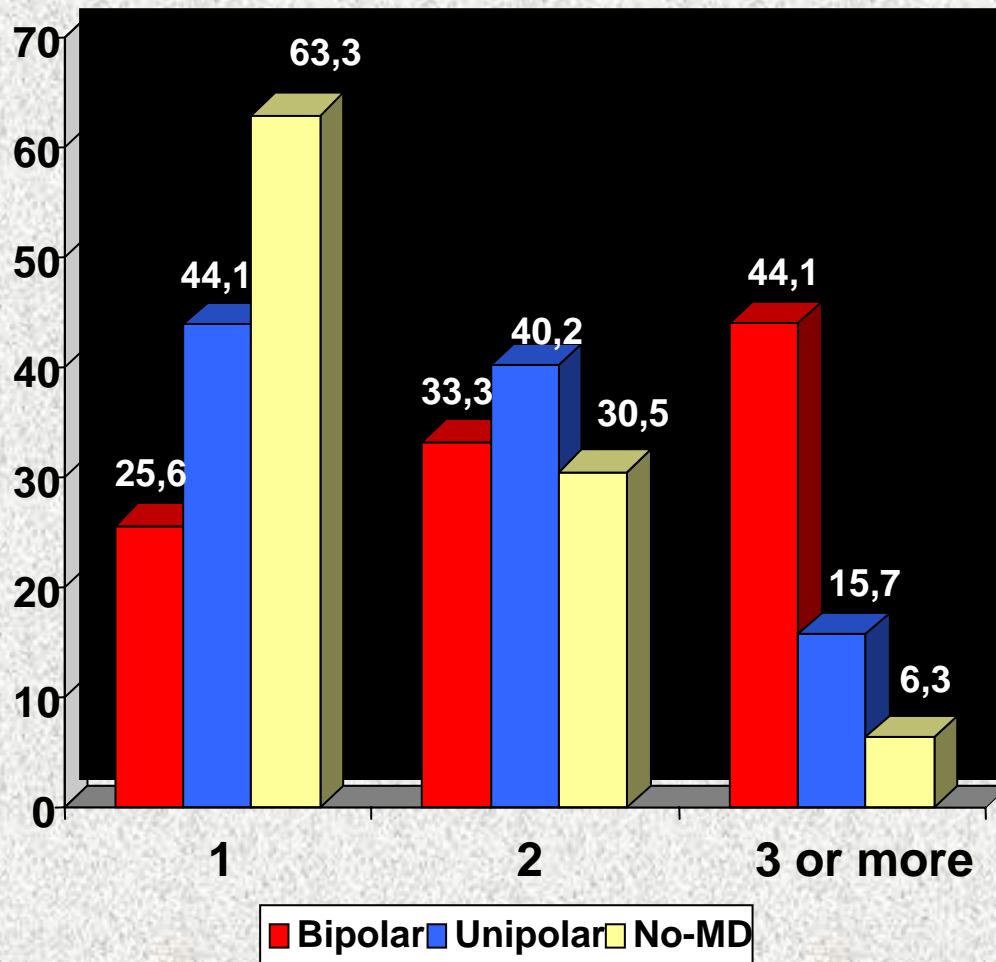


# Bipolar II: Reasons for treatment other than depression

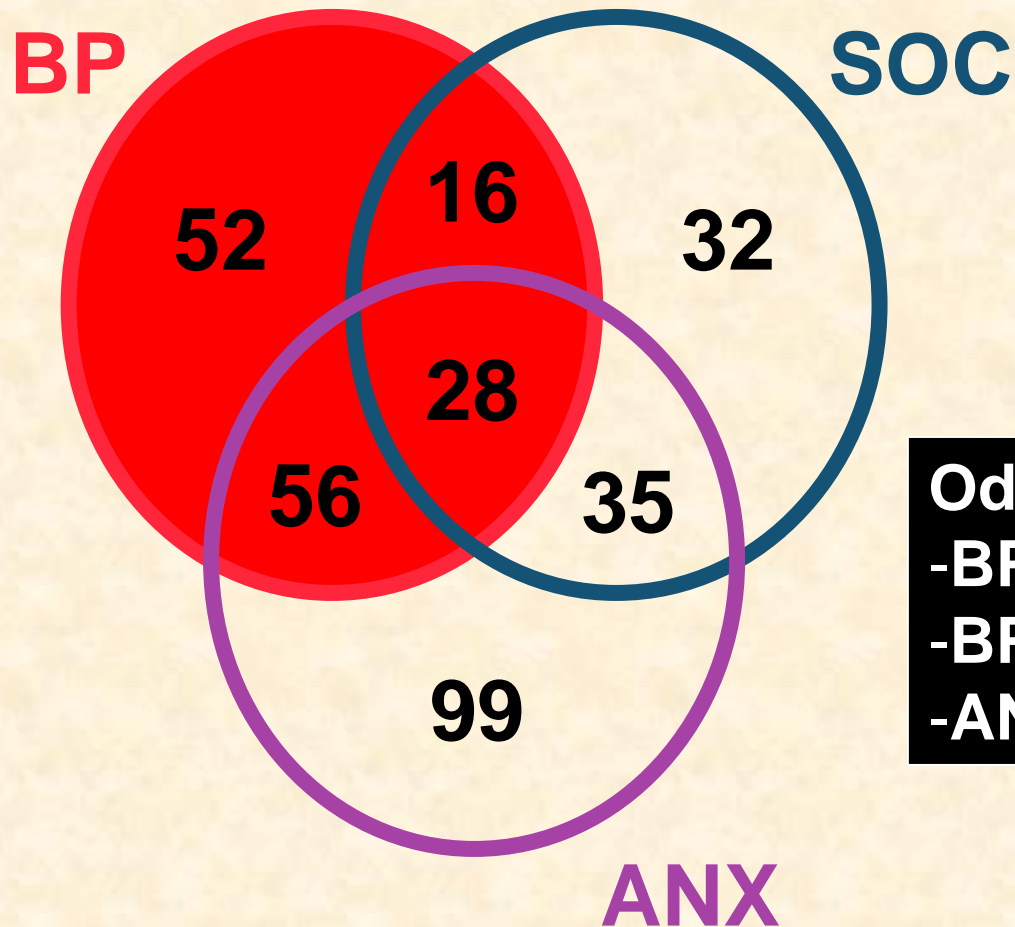
---

- Anxiety Disorders (PD, SP, OCD)
- Impulse Control Disorders
- Eating disorders (ABP, BN, BED)
- Aggression (CD, APD)
- Personality disorders (BPD, HyPD)
- Drug and alcohol abuse
- Drug Addiction

# Comorbidité avec les troubles anxieux au sein des troubles Bipolaires (n=43) vs Unipolaires (n=107) Vs Sans Dépression (n=101)



# Chevauchements des syndromes Bipolaires (BP), Anxieux (ANX) et Obsessionnels-Compulsifs (OC)



## Odds Ratios:

-BP \* ANX = 2,8 (1,9-4,1)

-BP\* SOC = 2,3 (1,5-3,5)

-ANX\* SOC = 2,8 (1,8-4,2)

# “TOC & ROC” Survey

## *Reactivity to anti-OCD drugs*

	<b>R&gt;0 (n=91)</b>	<b>ROC (n=159)</b>	<b>Do not Know (n=110)</b>
<b>Worsening</b>	<b>10%</b>	<b>21%</b>	<b>14%</b>
<b>Switching*</b>	<b>27%</b>	<b>42%</b>	<b>41%</b>

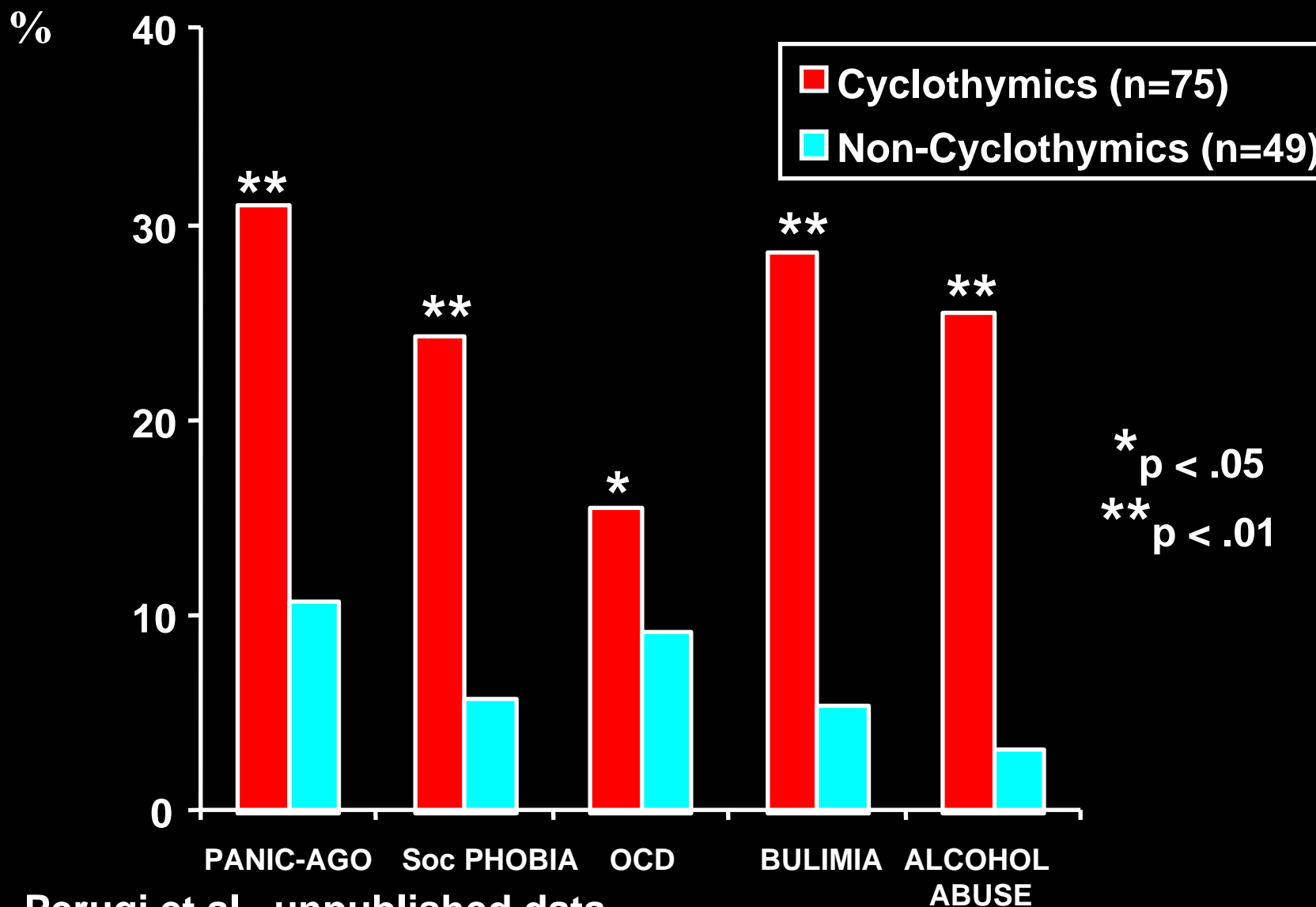
\* Switching includes aggressive behavior, severe insomnia, suicidal thoughts, bizarre behaviors, delusions, hallucinations, homicide thoughts...

# “TOC & ROC” Survey

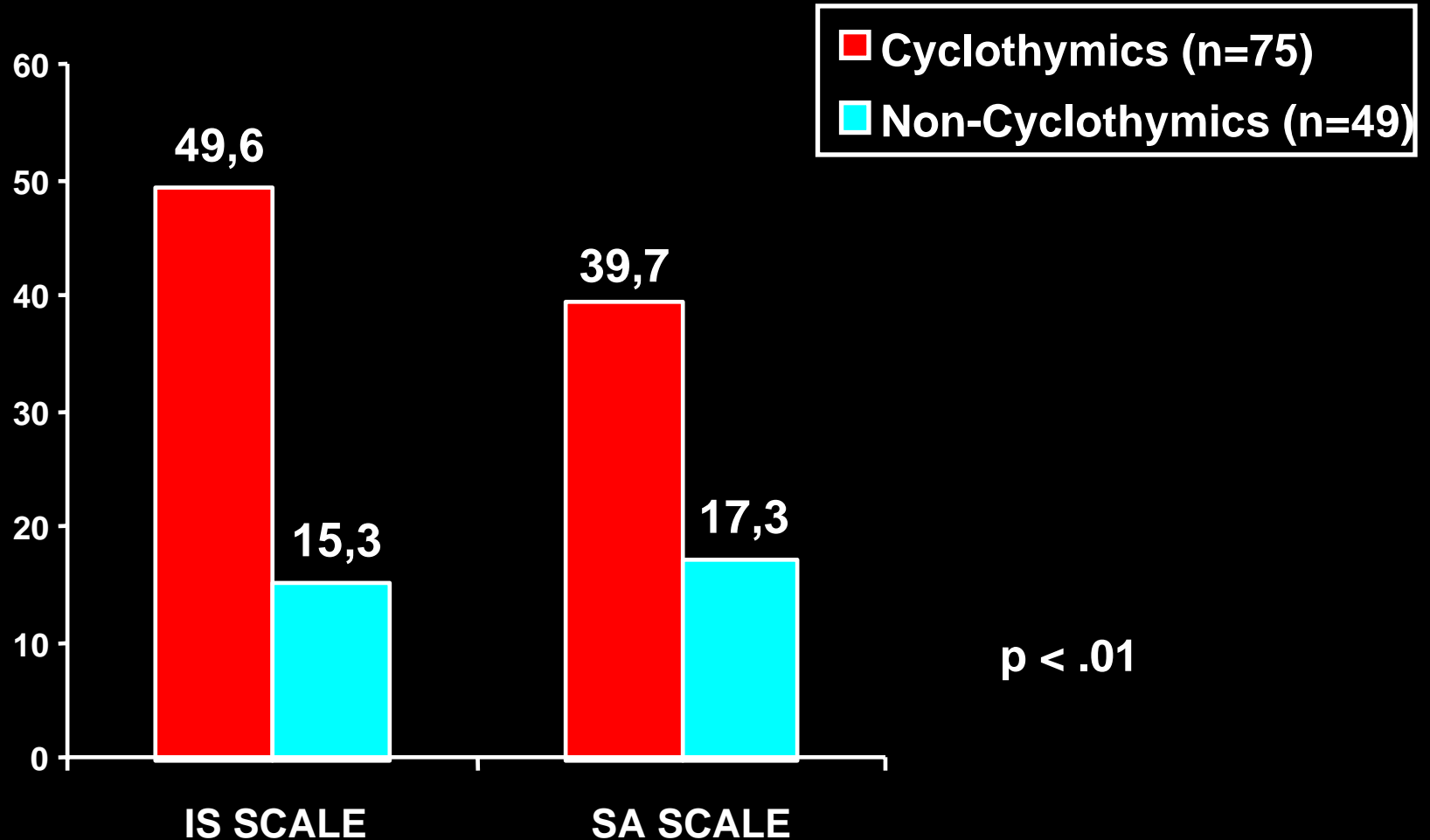
## *Temperament Profile*

	<b>R&gt;0 (n=91)</b>	<b>ROC (n=159)</b>	<b>p</b>
<b>Hyperthymic</b>	<b>28%</b>	<b>24%</b>	<b>NS</b>
<b>Depressive</b>	<b>53%</b>	<b>72%</b>	<b>0,004</b>
<b>Cyclothymic</b>	<b>43%</b>	<b>63%</b>	<b>0,003</b>
<b>Irritable</b>	<b>09%</b>	<b>21%</b>	<b>0,02</b>

# Comorbidity on Axis I in BP-II Disorder: Cyclothymics versus Non-Cyclothymics

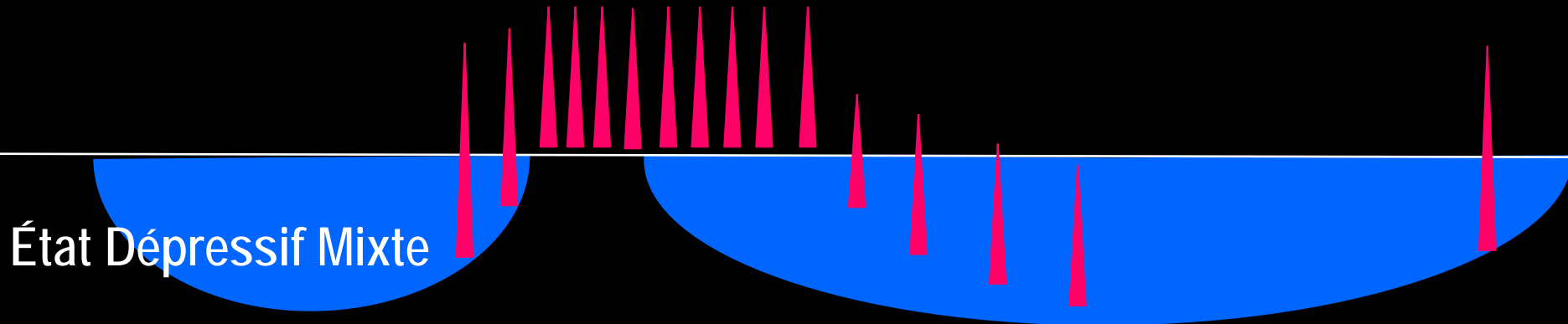
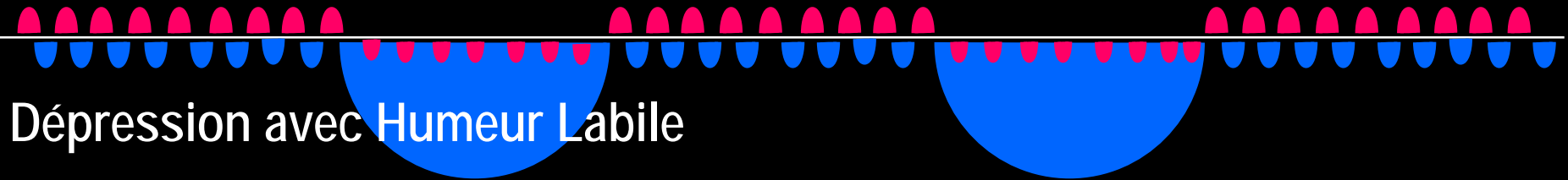
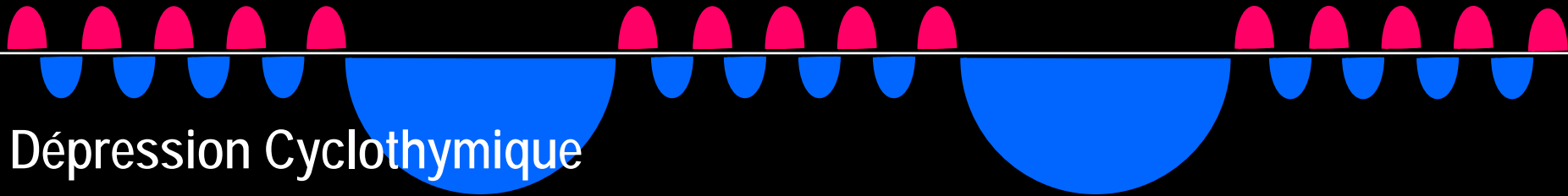


# Interpersonal sensitivity & Separation Anxiety: Cyclothymic BP-II vs Non-Cyclothymic BP-II



Perugi et al., unpublished data

# Tableau clinique complexe du "Trouble BP-II"



# Consequences of inaccurate diagnosis and inadequate treatment

- **Suicide**
  - attempts in 25–50% of patients<sup>1</sup>
  - completed suicide 6–15%<sup>2</sup>
  - correct treatment may help prevent suicide<sup>3</sup>
- **Higher physical morbidity and mortality<sup>4</sup>**

<sup>1</sup>Goodwin FK, Jamison KR. Manic-depressive illness. Oxford: Oxford University Press, 1990

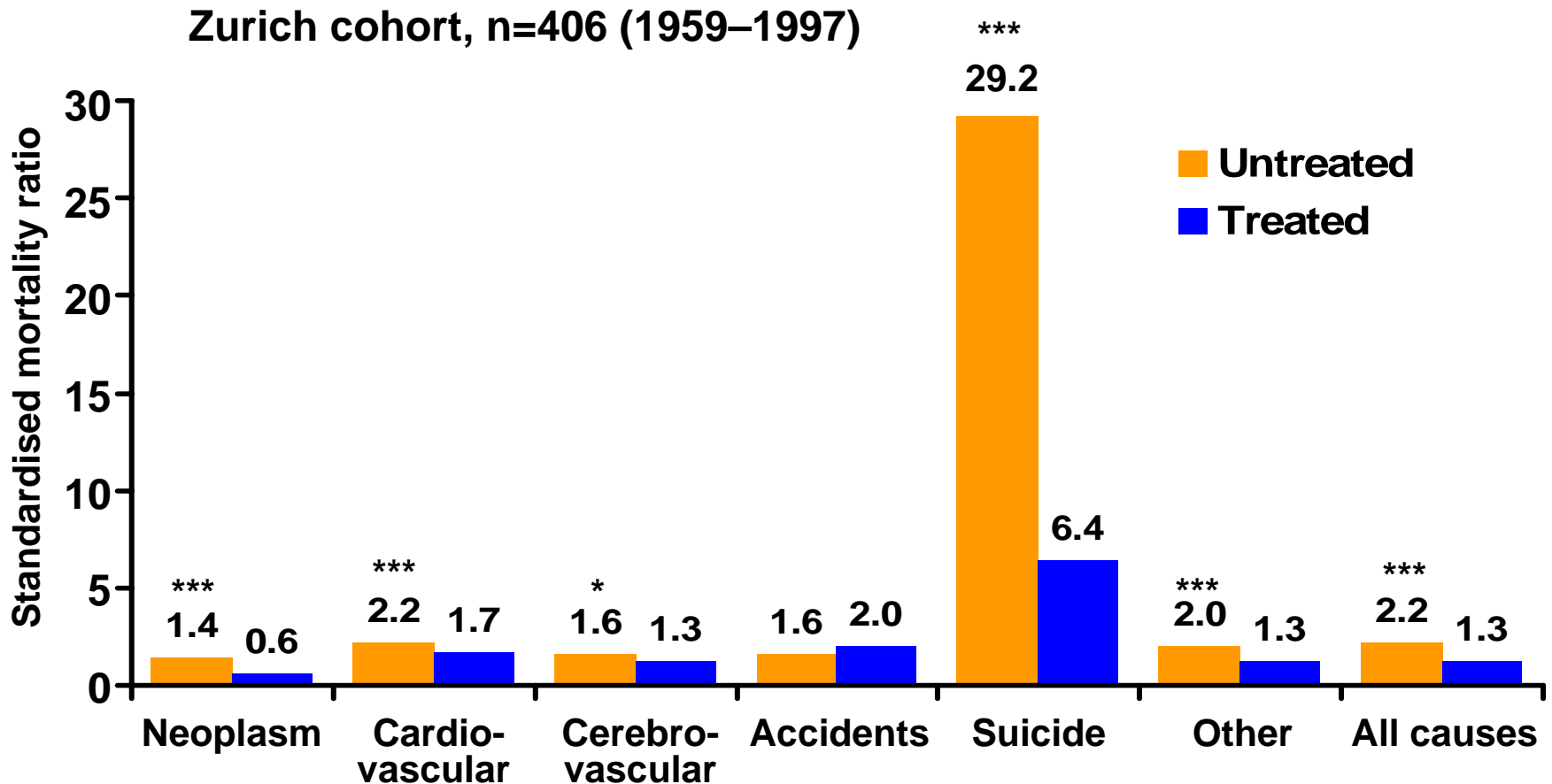
<sup>2</sup>Young AH, et al. BMJ 2000;321:1302–3; <sup>3</sup>Nilsson A. J Clin Psychiatry 1999;60(Suppl. 2):85–8

<sup>4</sup>Angst J, et al. Int J Psychiatry Clin Pract 1998;2:115–19

# Major impact on psychosocial functioning

- **Important problems in daily life**
  - **54% reported ever being fired/laid off work, compared with 29% non-bipolar**
  - **26% reported being jailed, arrested or convicted of a crime, compared with 5% non-bipolar**

# Bipolar disorder: medical benefits of appropriate treatment



\*p<0.05; \*\*\*p<0.001 vs treated

Angst F, et al. J Affect Disord 2002;68:167–81

# Screening for bipolar disorder: Mood Disorder Questionnaire

- **A brief, simple self-report questionnaire for bipolar disorder**
  - 13 yes/no items regarding bipolar disorder
- **Well validated in psychiatric and general population samples**
- **Translated into several languages**

# Hypomania Checklist

HCL (20 items) is filled out by patients

✉ Score 9 or more indicates the diagnosis of BP-II

✉ New version with 32 items is currently in running validation in 12 languages (Angst et al, 2005 in press)

Angst, 1992;

Angst, Hantouche, Akiskal, et al, ECNP, 2004

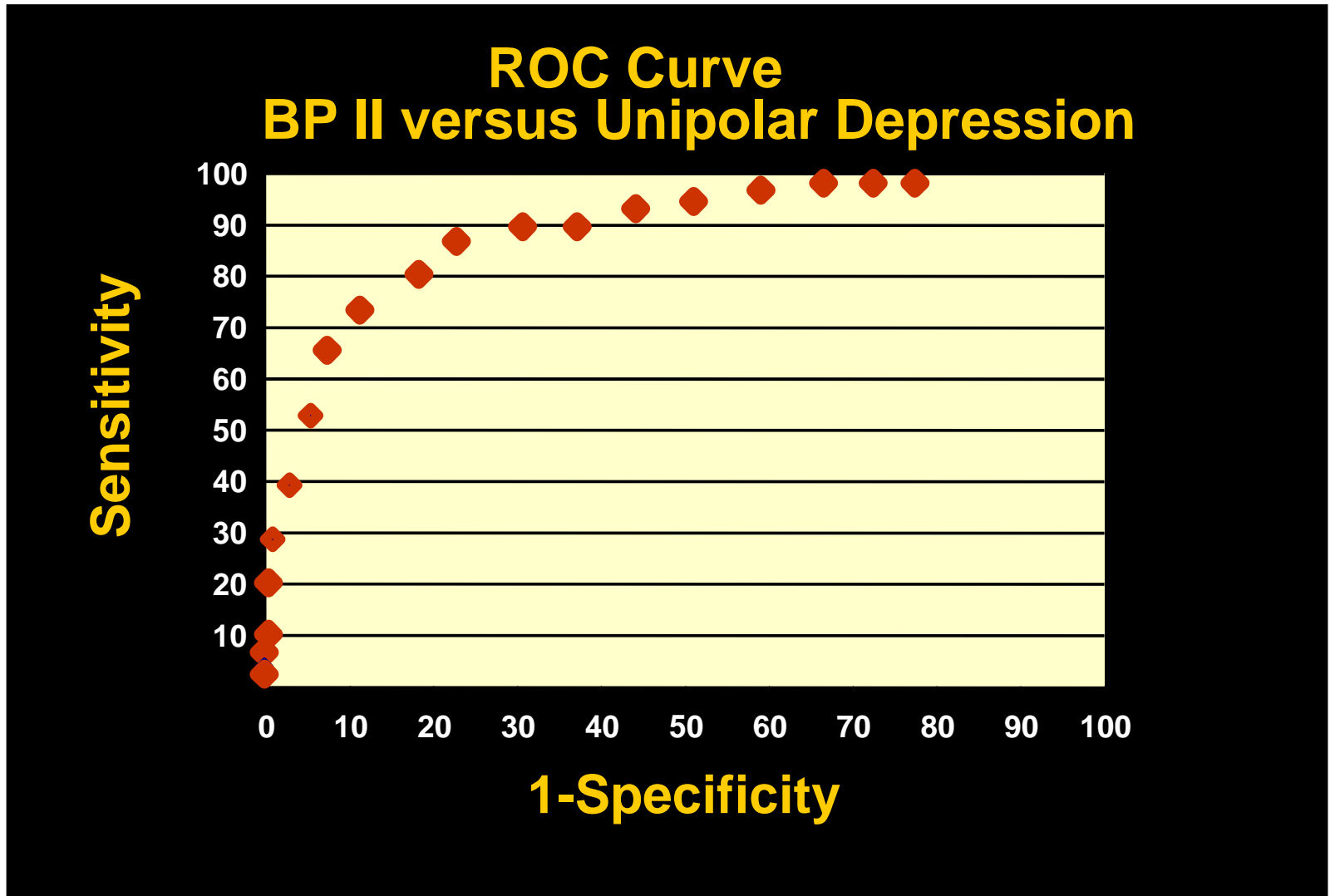
# Is self-assessment of Hypomania suitable for screening BP-II Disorder?

<b>DIAGNOSIS</b>	<b>BEST SCORE*</b>	<b>CORRECT DIAGNOSIS§</b>	<b>SENSITIVITY</b>	<b>SPECIFICITY</b>
- Spontaneous Hypomania	9	81%	86,5%	77,1%
- BP-II +BP-III	10	79%	80,2%	78,1%
- BP-I (Mania)	11	86%	74,4%	88,6%

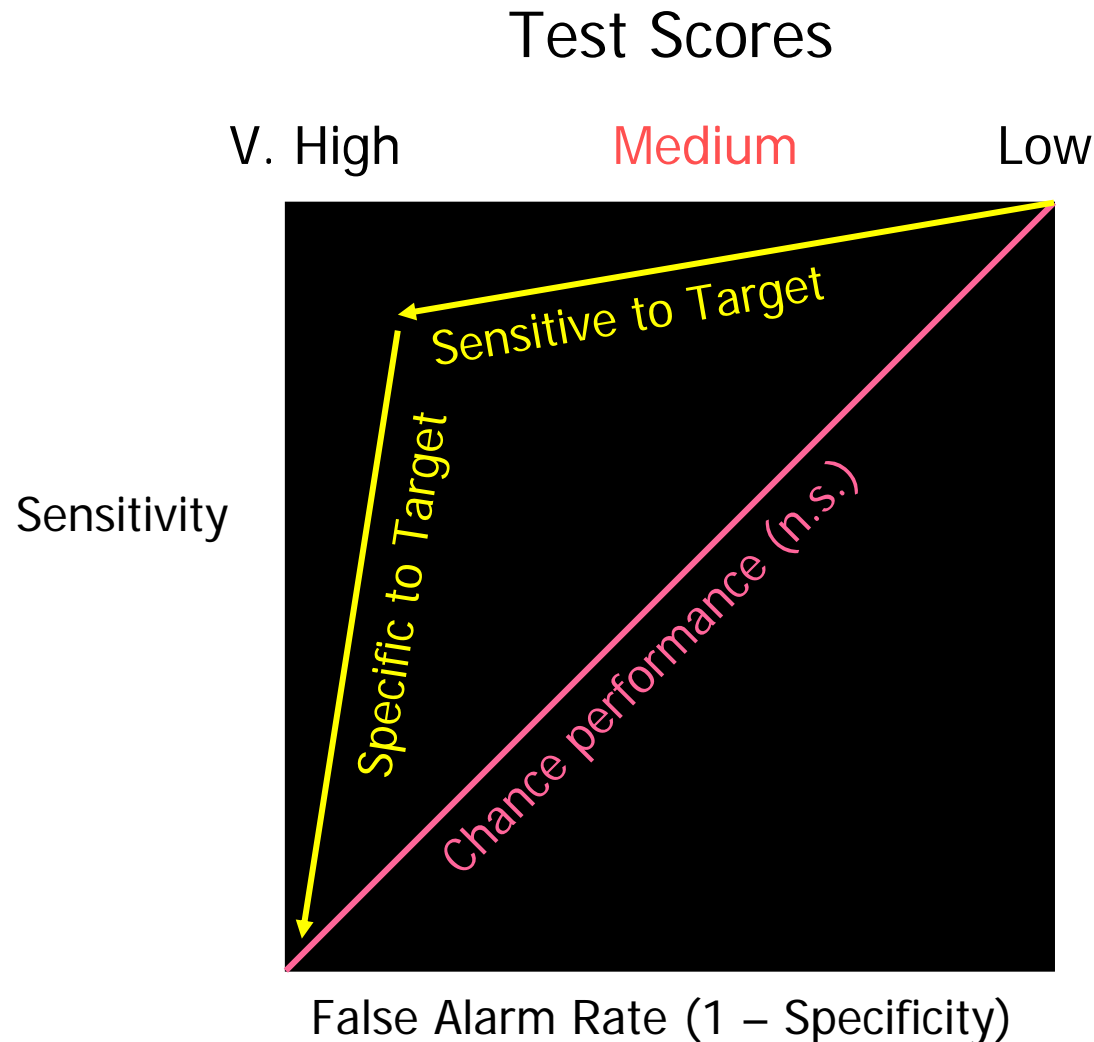
\* Checklist of Hypomania, 20 items (HC)

§ ROC Analysis comparing diagnostic value of HC with DSM-IV criteria

# Self-assessment of Hypomania by using Hypomania Checklist of Angst



# Evaluating Diagnostic Efficiency: Receiver Operating Characteristics (ROC)



# Phenomenology of Hypomania

Relationship with Cyclothymia

## ***Factor 1 : 'SUNNY' SIDE OF HYPOMANIA***

***(eigenvalue : 4,8)***

- **Less sleep**
- **More drive and energy**
- **More self-confidence**
- **Increased work motivation**
- **Increased social activity**
- **Increased physical activity (in work also)**
- **More plans and ideas**
- **Less shy, less inhibited**
- **More talkative than usual**
- **Extremely happy mood, over-euphoric**
- **More puns and jokes, laughing more**
- **Faster thinking**

## ***Factor 2 : 'DARK' SIDE OF HYPOMANIA***

***(eigenvalue : 2,1)***

- **More traveling, imprudent driving**
- **Increased spending and/or buying**
- **Foolish business behavior or investment**
- **More irritable, impatient**
- **Attention too easily drawn**
- **Increased sex drive and interest in sex**
- **Increased consumption of coffee, cigarettes**
- **Increased consumption of alcohol**

## Temperament Profile in BP-II Disorder

	Unipolar (n = 256)	Bipolar II (n = 196)	p
CL-Hypomania (Angst)	5.6 (4.5)	12.0 (4.1)	< .001

### Temperament

- Cyclothymic	6.3 (4.9)	10.1 (5.2)	< .001
- Hyperthymic	4.6 (4.8)	7.8 (5.5)	< .001
- Irritable	3.6 (3.1)	5.2 (3.2)	< .001
- Depressive	11.3 (5.3)	9.9 (4.9)	.004

# Relationships between Hypomania & Cyclothymia

## Cyclothymia (self-rated)

▪ Score F1 'Sunny'       $r = .07$       NS

▪ Score F2 'Dark'       $r = .37$        $p < .0001$

# Dimensions de l'Hypomanie dans les sous-types du spectre bipolaire

	Hypomanie	
	F1 «Soleil»	F2 «Sombre»
▪BP-II 1/2 (n = 161)	8.1 (3.5)	3.2 (1.8)
▪BP-II (n = 60)	8.6 (3.1)	2.7 (1.9)
▪BP-III (n = 28)	8.6 (3.7)	1.9 (1.8)
▪BP-IV (n = 17)	5.8 (4.2)	1.6 (1.5)
▪UP (n = 161)	4.1 (3.2)*	0.7 (1.1)**

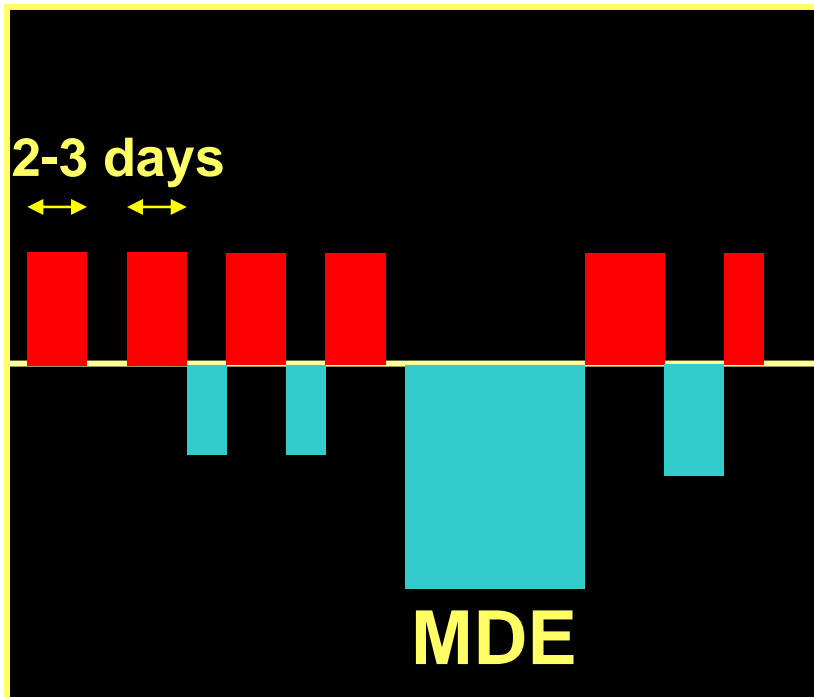
\* P <.001: II1/2, II, III > IV > UP

\*\* P <.001: II1/2 > II > III = IV > UP

# Redefining the Bipolar Spectrum

• BP-I (MDE + M)	41	8%
• BP-II 1/2 (MDE + CT)	166	31%
• BP-II (MDE + m Sp, Wo CT)	61	11%
• BP-III (MDE + m AA)	30	6%
• BP-IV (MDE + HT)	22	4%
• Strict UP	217	40%

# MDE + CYCLOTHYMIA (BP-II1/2) (Recurrent Brief Hypomania - Angst)



Angst, JAD, 1998  
Hantouche et al, JAD, 2003  
Akiskal et al, JAD, 2003

- «Dark side» of Hypomania
- Duration 1-3 days
- Highly recurrent (+ BRD)
- Prevalence in GP : 1,5%
- Younger age of onset
- High depressive intensity
- Persistent Mood lability
- High comorbidity with :
  - Dysthymia
  - OCD / OCS
  - Panic attacks
  - Tobacco dependence

# Correlations between Temperaments (TEMPS-A) and Personality (TCI)

	"Harm avoidance"	"Novelty seeking"
Dysthymic	.58	-.10
Cyclothymic	.49	.35

# Bipolar Spectrum, "Self-stimulating" and "Sensation-seeking" behaviour



Sex

Work

Drugs

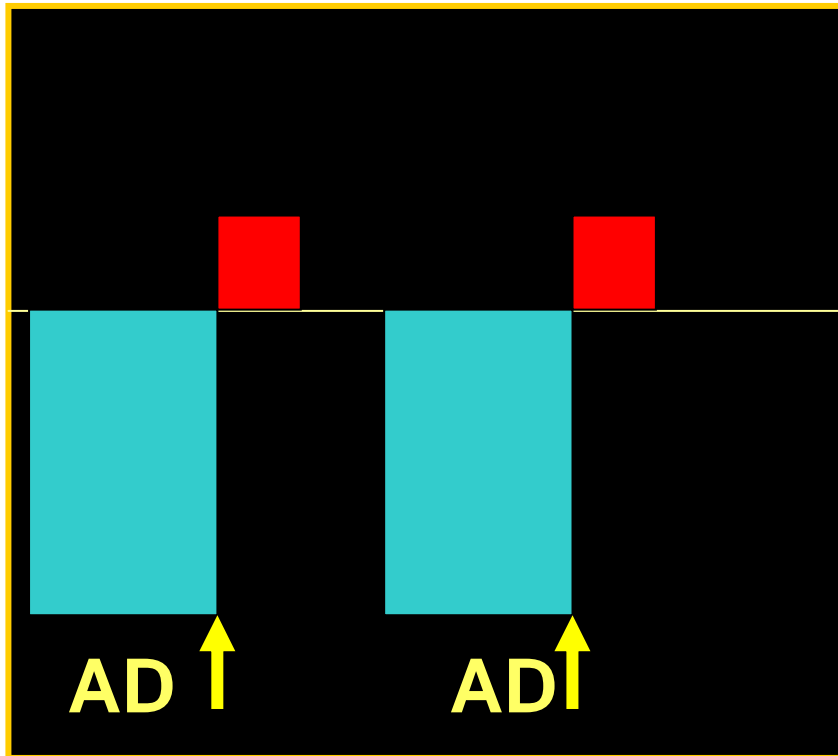
Food

Light

Traveling

Gambling

# MDE + PHARMACOLOGIC HYPOMANIA (BP-III) (Sporadic Hypomania - Angst)



- Typical symptoms of Hypomania
- Duration 2-4 days
- Prevalence in GP : 1,3%
- Severity of MDE
- Atypical MDE
- Depressive temperament or 'Dysthymia' (Double Depression)
- Agoraphobia comorbidity
- Family history of completed suicide

# Validating « BP-III » sub-type

	BP-II Sp (n = 144)	BP-II AA (n = 52)	p
Hypomania score	12.2	11.4	NS
FH of BP Disorder	14.1 %	11.8 %	NS
Prior ECT	4.2 %	15.7 %	.02
FH of Completed Suicide	3.5 %	13.7 %	.024
<b>Temperament</b>			
- Cyclothymic	10.7	8.4	.006
- Depressive	9.5	11.1	.04

# Clinical Spectrum of Hypomania

<b>Angst (1998)</b>	<b>Hantouche &amp; Akiskal (2000)</b>	<b>Akiskal &amp; Pinto (1999)</b>
<b>'m' DSM IV</b> <b>'m' Brief Recurrent</b> <b>'m' Sporadic</b>	<b>Spontaneous 'm'</b> <b>'m' + Cyclothymia</b> <b>'m' Associated to AD</b>	<b>BP-II</b> <b>BP-II1/2</b> <b>BP-III</b>

## Bipolaire II - DSM-IV (Bipolaire I)

- Changements thymiques spontanés
- Cyclicité de l'humeur
- Irritabilité
- Culpabilité
- Impulsivité phase dépendante
- Fuite des idées, pensées rapides
- Réponse aux stimuli internes
- Variation diurnale classique
- Suicide

## BP II avec Cyclothymie (Personnalité Borderline)

- Changements thymiques réactifs
- Instabilité émotionnelle
- Colère
- Hostilité
- Impulsivité trait
- *Crowded thoughts, day-dreaming*
- Sensibilité interpersonnelle
- Variation diurnale inversée
- Tentatives de suicide et auto-mutilations

## Bipolaire II - DSM-IV (Bipolaire I)

- Troubles psychomoteurs sévères
- Libido augmentée
- Troubles cognitifs
- Cycling sous antidépresseurs
- Lithium: bonne réponse
- Abus erratique de drogues
- Pas de trauma dans l'enfance
- HF bipolaire unilatérale
- Hypothyroïdie

## BP II avec Cyclothymie (Personnalité Borderline)

- Pas de troubles PM sévères
- Problèmes d'identité sexuelle
- Peu de troubles cognitifs
- Hypomanie transitoire sous antidépresseurs
- Lithium: réponse mitigée
- Addiction médicamenteuse
- Abus sexuel dans l'enfance
- HF bilatérale thymique et addictive
- Pas d'hypothyroïdie

# SPECTRE EVOLUTIF DES TROUBLES BIPOLAIRES



## TYPIQUEMENT EPISODIQUE :

- Inter-épisode stable
- Absence d'états mixtes
- Peu de récurrence
- Bonne rémission
- Faible incidence des complications

## INSTABILITE EMOTIONELLE RADICALE:

- Inter-épisode instable
- Etats Mixtes
- Episodes fréquents
- Rémission incomplète
- Trop de complications
- Début précoce
- Forte charge génétique

# Cours Evolutif du trouble

- Début précoce
- Susceptibilité à la Récurrence
- Tendance vers l'accélération des cycles
- Stresseurs, abus de substance
- Trauma dans l'enfance : début plus précoce, cycles rapides, tentatives de suicide

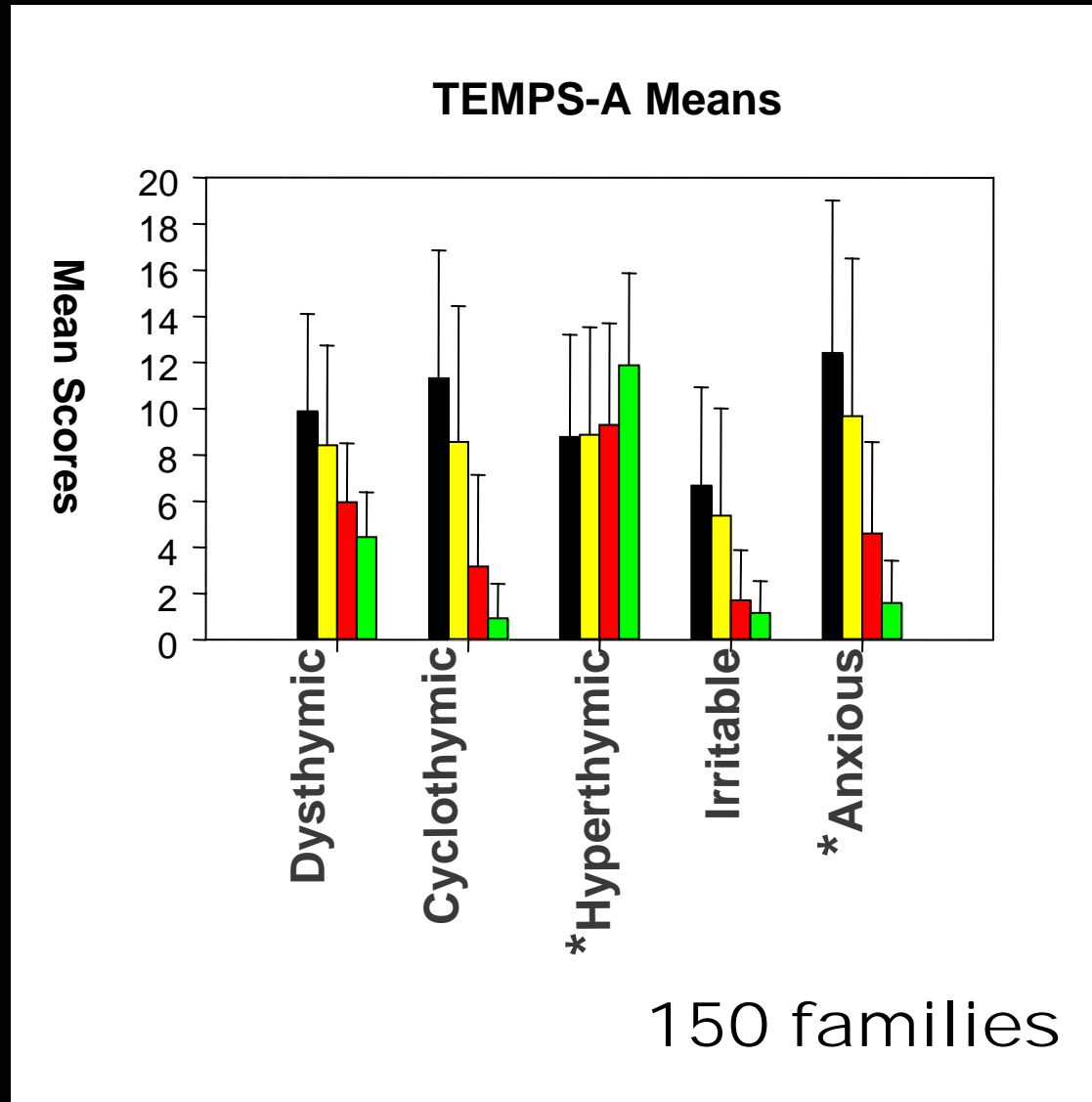
Garno et al, Br J Psychiatry 186:  
121-125, 2005



And for the rest of his life, the young reptile suffered deep emotional scars.

# Temperament as endophenotype?

**Cyclothymic and anxious reactivity best distinguishes controls from healthy relatives**



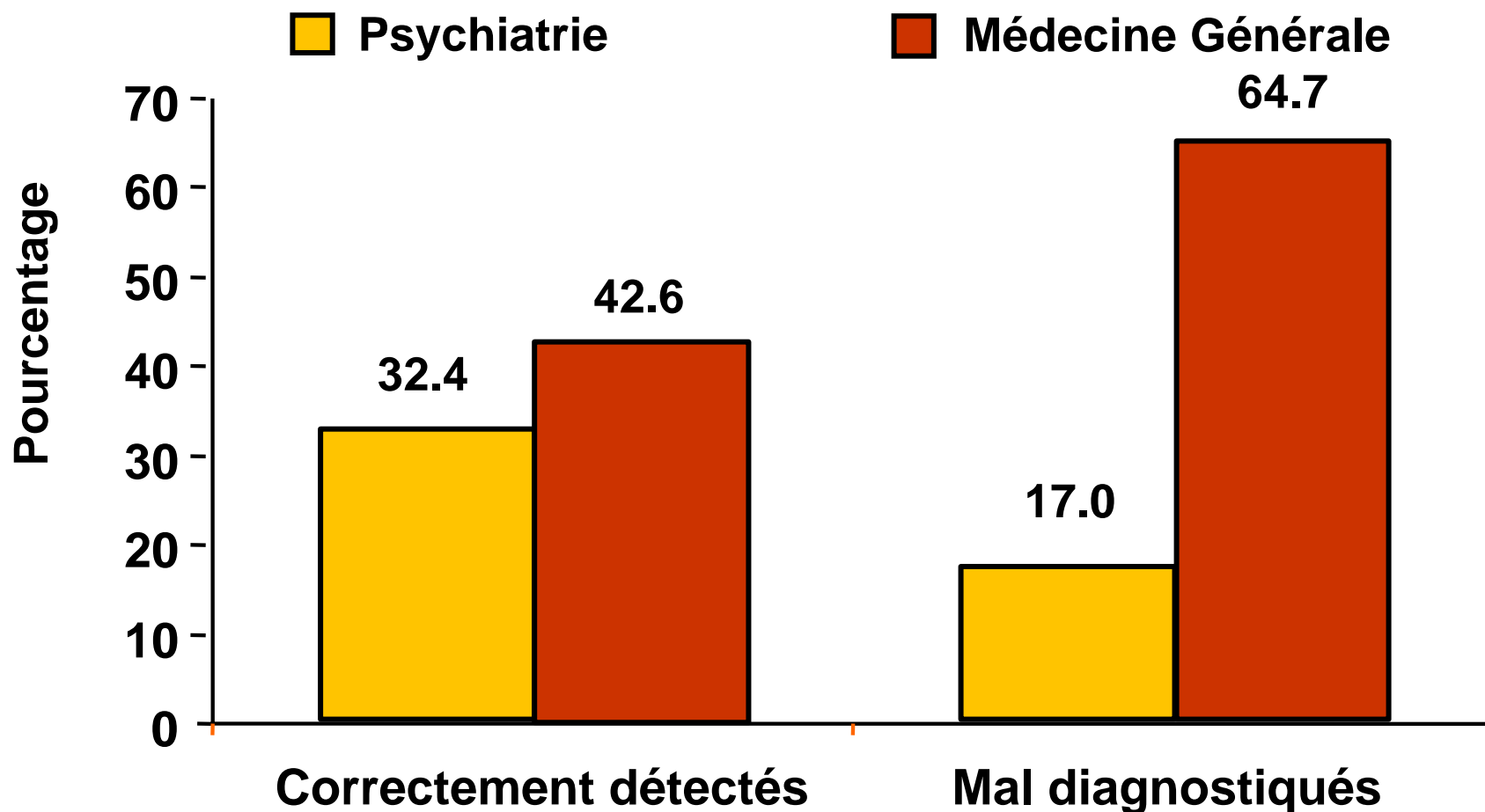
# Zurich Study; Lessons for BP Disorders

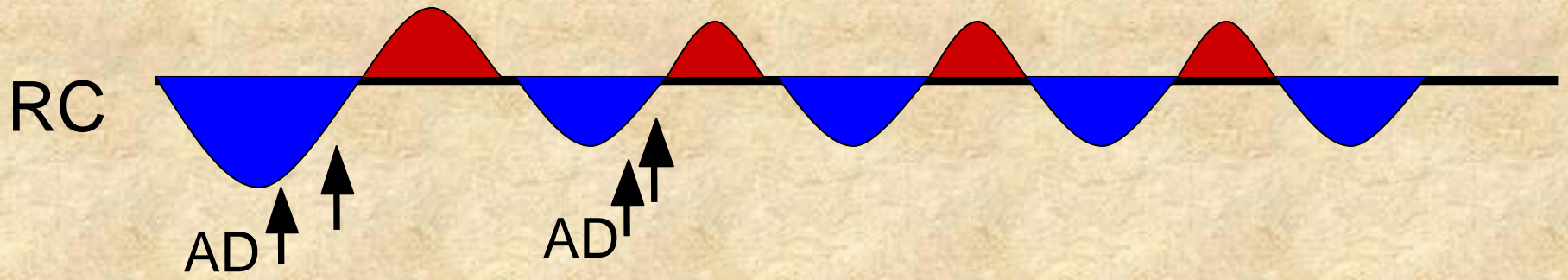
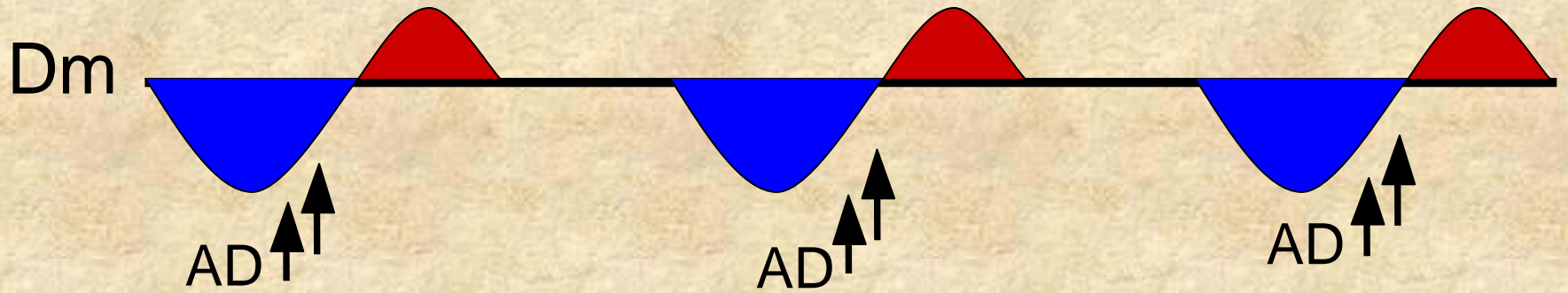
- There is a broad bipolar spectrum with fluid borders to major depressive disorders.
- About 50% of depressives are probably bipolar
- Therefore the burden of bipolar disorder may be higher than that of depression
- A broad definition of bipolar II disorder seems to be valid: FH mania, conduct problems in childhood and/or adolescence, ups & downs, GBI scales for hypomanic and cyclothymic temperament, number of manic symptoms, course
- Criterion A of DSM-IV and ICD-10 for mania (elated or irritable mood) needs revision. It should include overactivity.

# Take Home Messages for Clinicians

- Accept the reality of “Bipolar Spectrum”
- Systematic search for Bipolar “indicators” or “specifiers”
- Use self-rating of Hypomania and Cyclothymia
- Involve family members in clinical assessment
- Consider radical instability as a distinct subtype (BP-II1/2)
- “Think bipolar”, especially in depressed patients with “red signs” or “rule of 3 or more” (3 episodes, 3 doctors, 3 antidepressants, 3 disorders, 3 marriages, 3 languages, 3 talents, 3 jobs...)

# Usage des Antidépresseurs sans Stabilisateurs ou Antipsychotiques





**Merci de votre écoute**