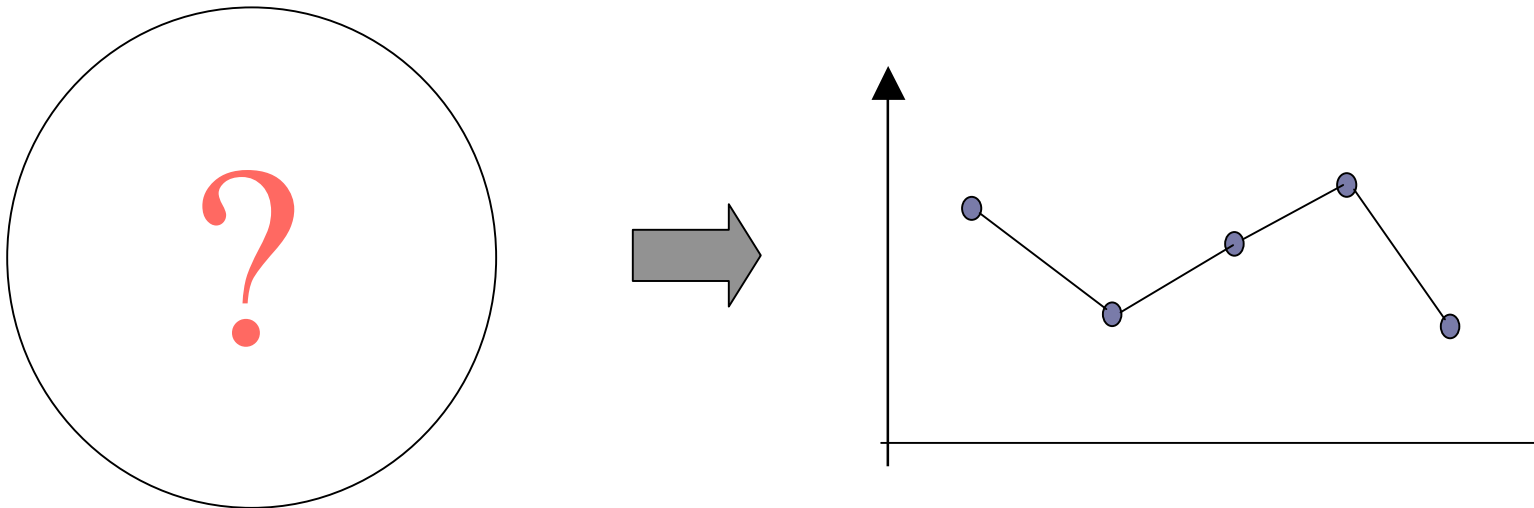


Individual Differences in Automatic Evaluative Associations toward Significant Persons

Yuichi Shoda & Vivian Zayas
University of Washington

Next challenge: What generates the behavioral signature?



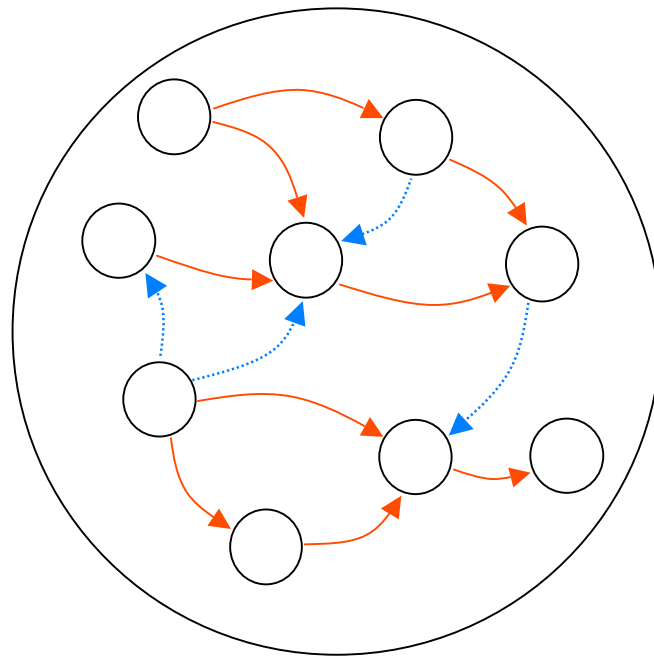
A Cognitive-Affective Processing System (CAPS) Model

Personality = Network of
cognitions and
affects

(*Psychological Review*, 1995, v. 102, pp. 246-268)

“Personality” as a network of cognitive-affective units

Bill



Bill

Situation A

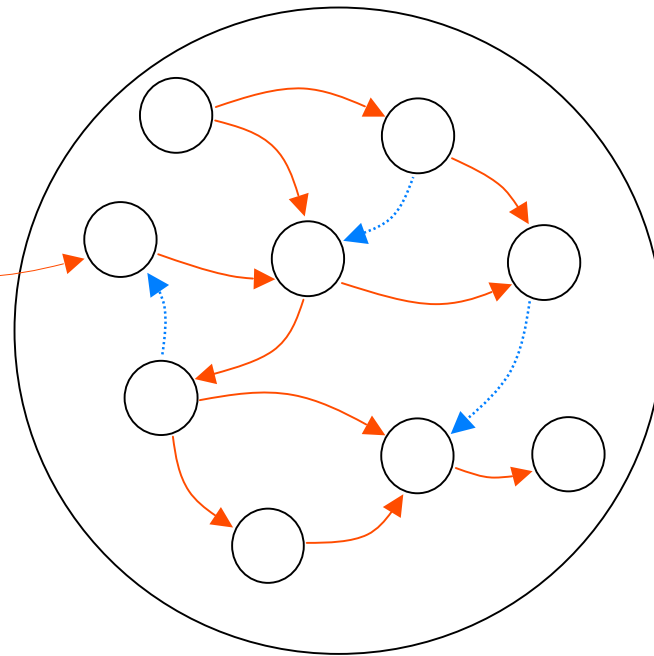
feature 1

feature 2

feature 3

feature 4

...



Bill

Situation A

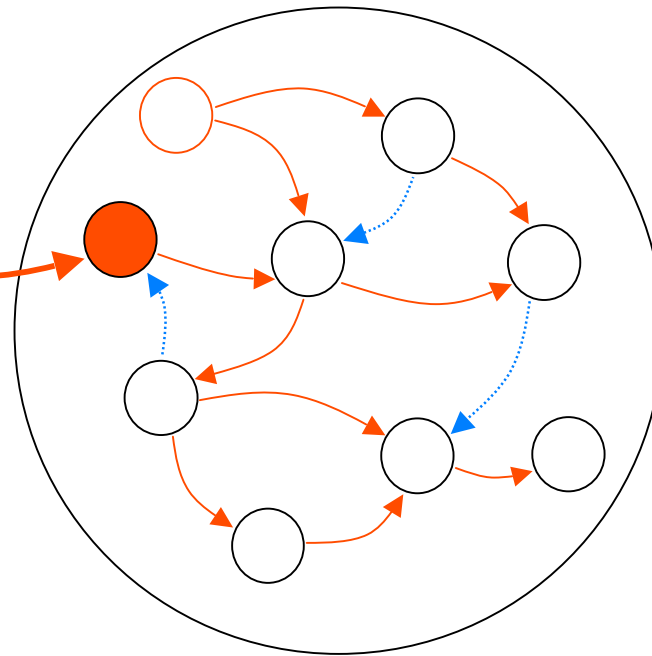
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feature 3

feature 4

...



Bill

Situation A

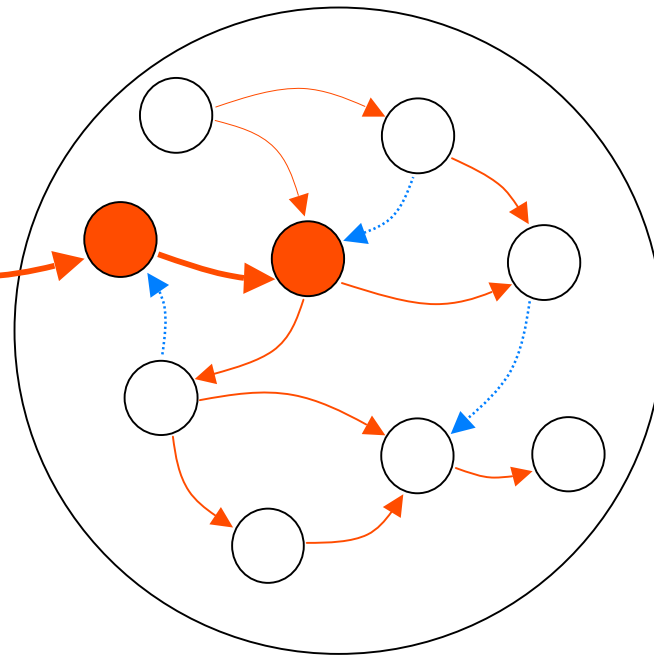
feature 1

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feature 3

feature 4

...



Bill

Situation A

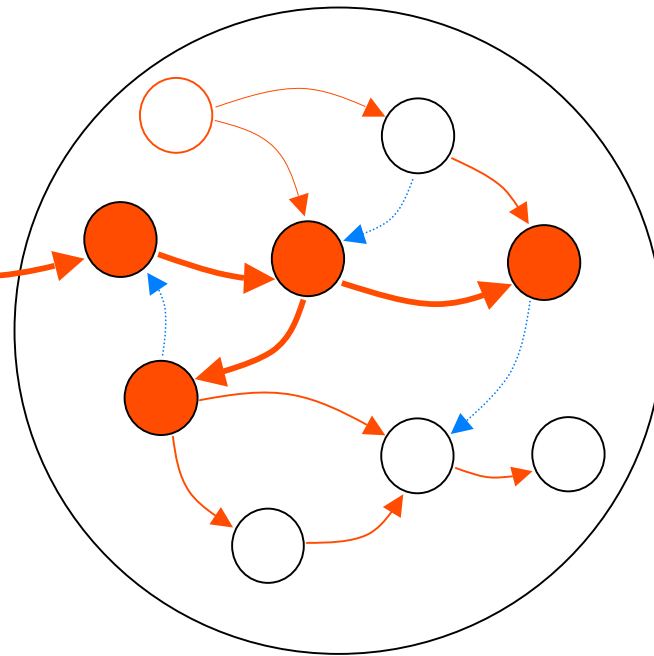
feature 1

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feature 4

...



Bill

Situation A

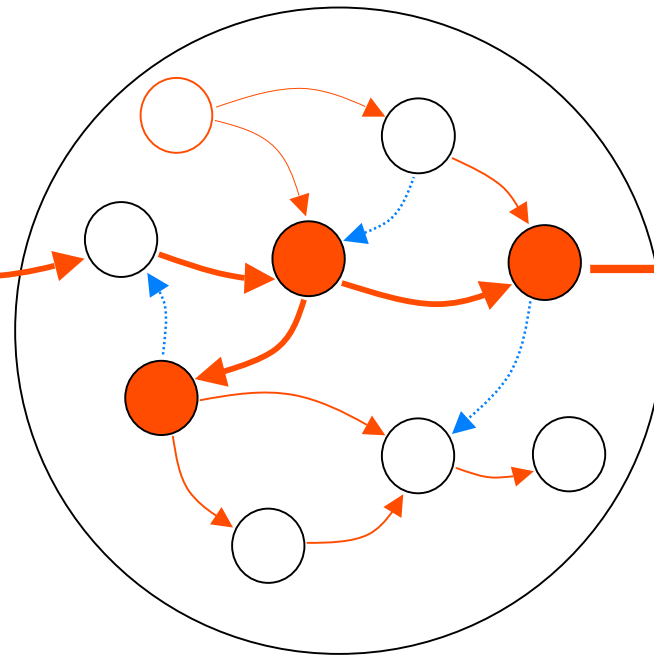
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feature 4

...



Behavior: Warm

What if the same personality
system is exposed to **Situation B**?

Bill

Situation B

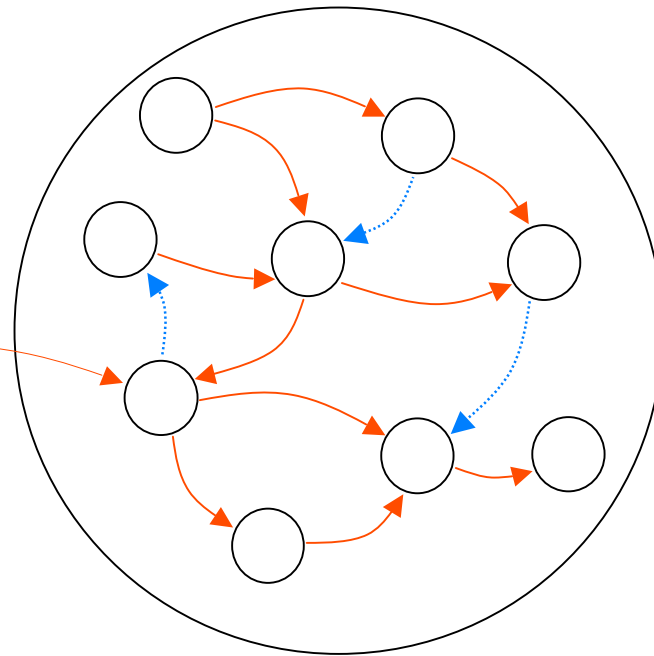
feature 1

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Bill

Situation B

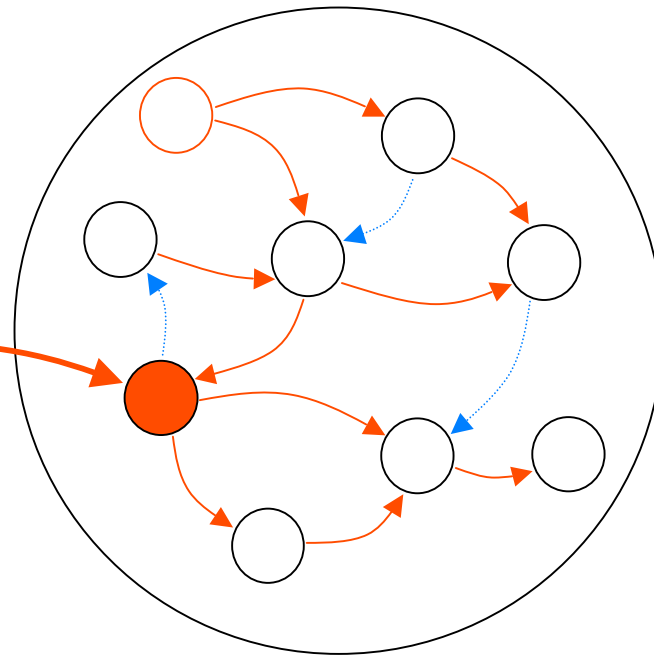
feature 1

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...



Bill

Situation B

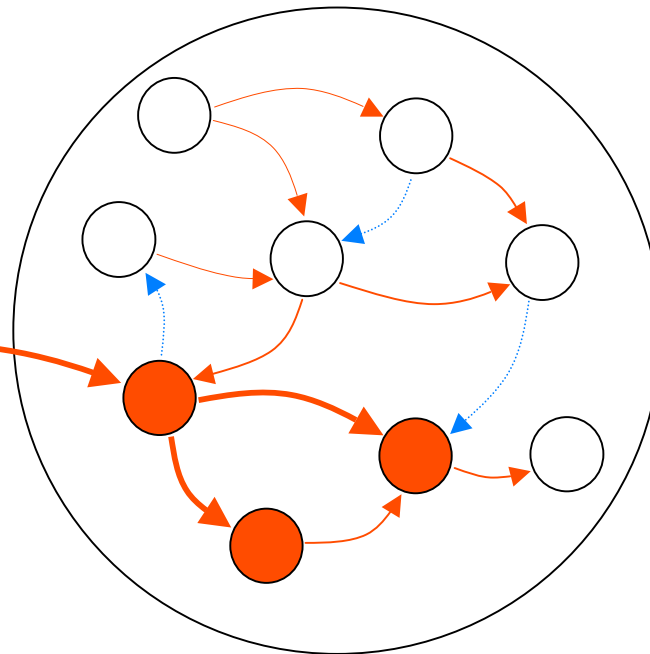
feature 1

feature 2

feature 3

feature 4

...



Bill

Situation B

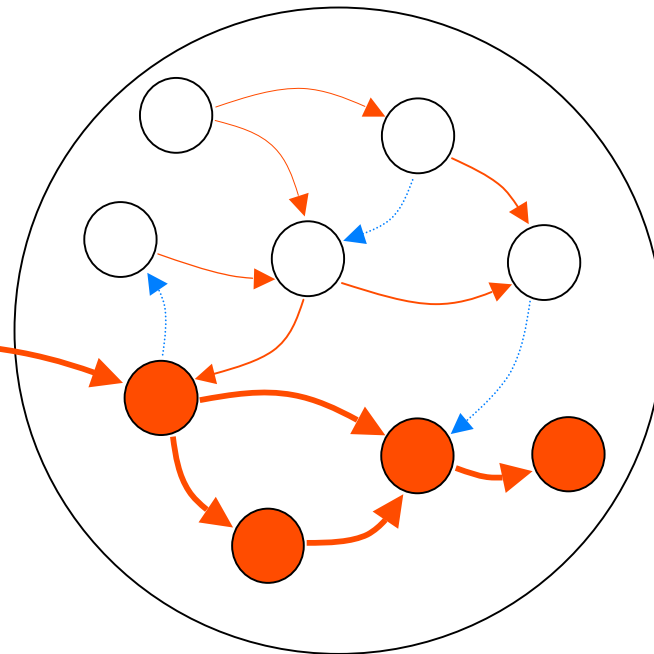
feature 1

feature 2

feature 3

feature 4

...



Bill

Situation B

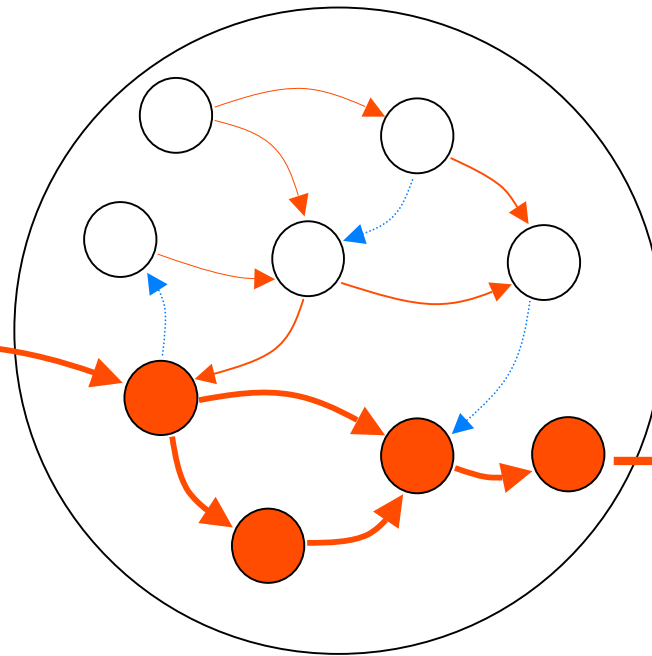
feature 1

feature 2

feature 3

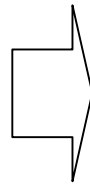
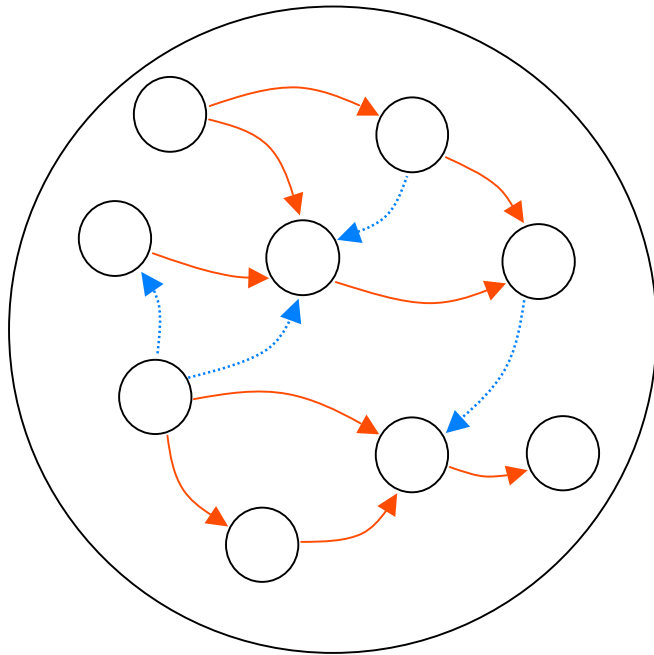
feature 4

...



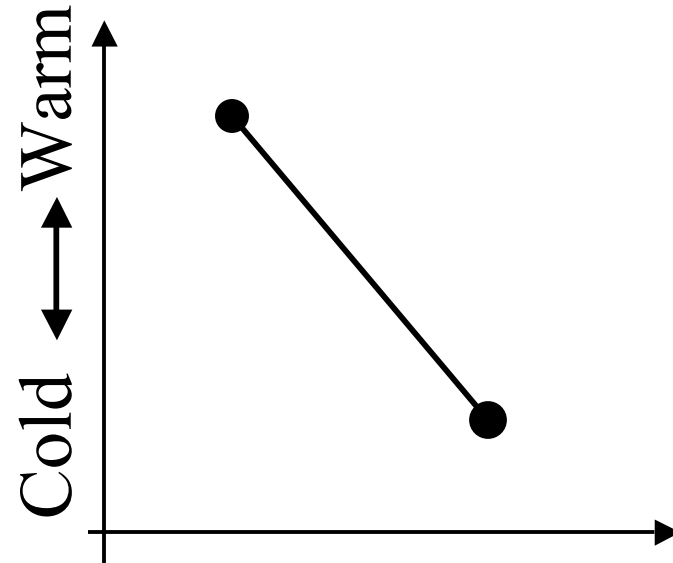
Behavior: Cold

Bill's Personality



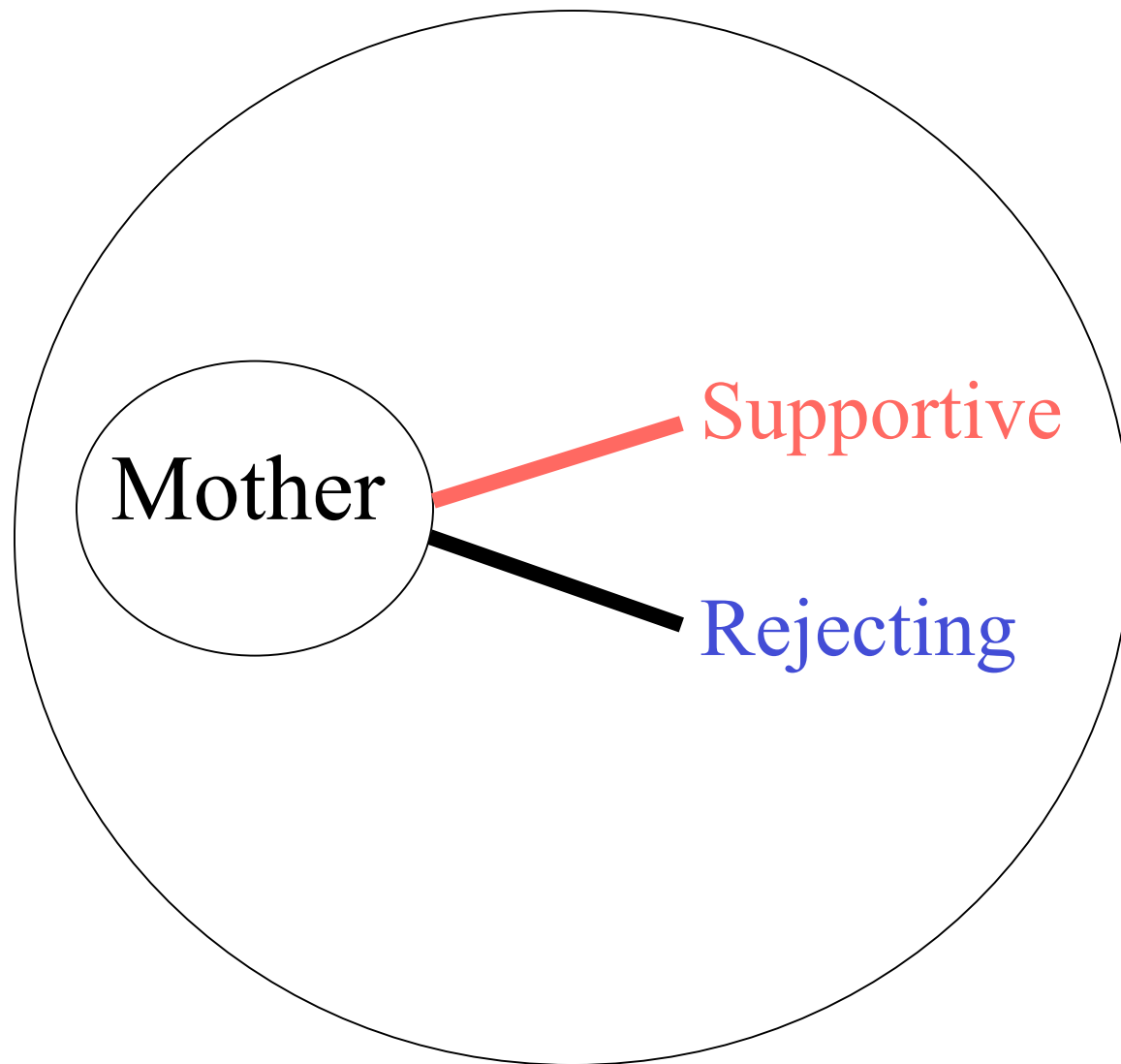
“Behavioral signature” of Bill's personality

Then:



If:

Situation A Situation B



Implicit Association Test (IAT)

Greenwald, McGhee, & Schwartz (1998)

Generating stimuli idiographically

Bill

Not **Bill**

Jefferson

Middle name

George

Clinton

Last name

Adams

Hope, AK

Birthplace

Quincy, MA

August 19

Birthday

Oct. 4

Grey

Hair color

Black

4 types of words appear, one by one, on computer screen

1. Words that refer to “Bill”
2. Words that refer to someone “not Bill”
3. Words that refer to pleasant concepts:
(health, peace, love, freedom...)
4. Words that refer to UNpleasant
concepts: (sickness, war, cancer,
desaster...)



Black Hair

Categorized together in *compatible* trials

**Press the Left
key when:**

Bill

or

Pleasant

**Press the Right
key when:**

NOT Bill

or

UNpleasant



Black Hair

Categorized together in *INcompatible* trials

**Press the Left
key when:**

Bill

or

UNpleasant

**Press the Right
key when:**

NOT Bill

or

Pleasant

Study 1

Sample 1

$N=18$

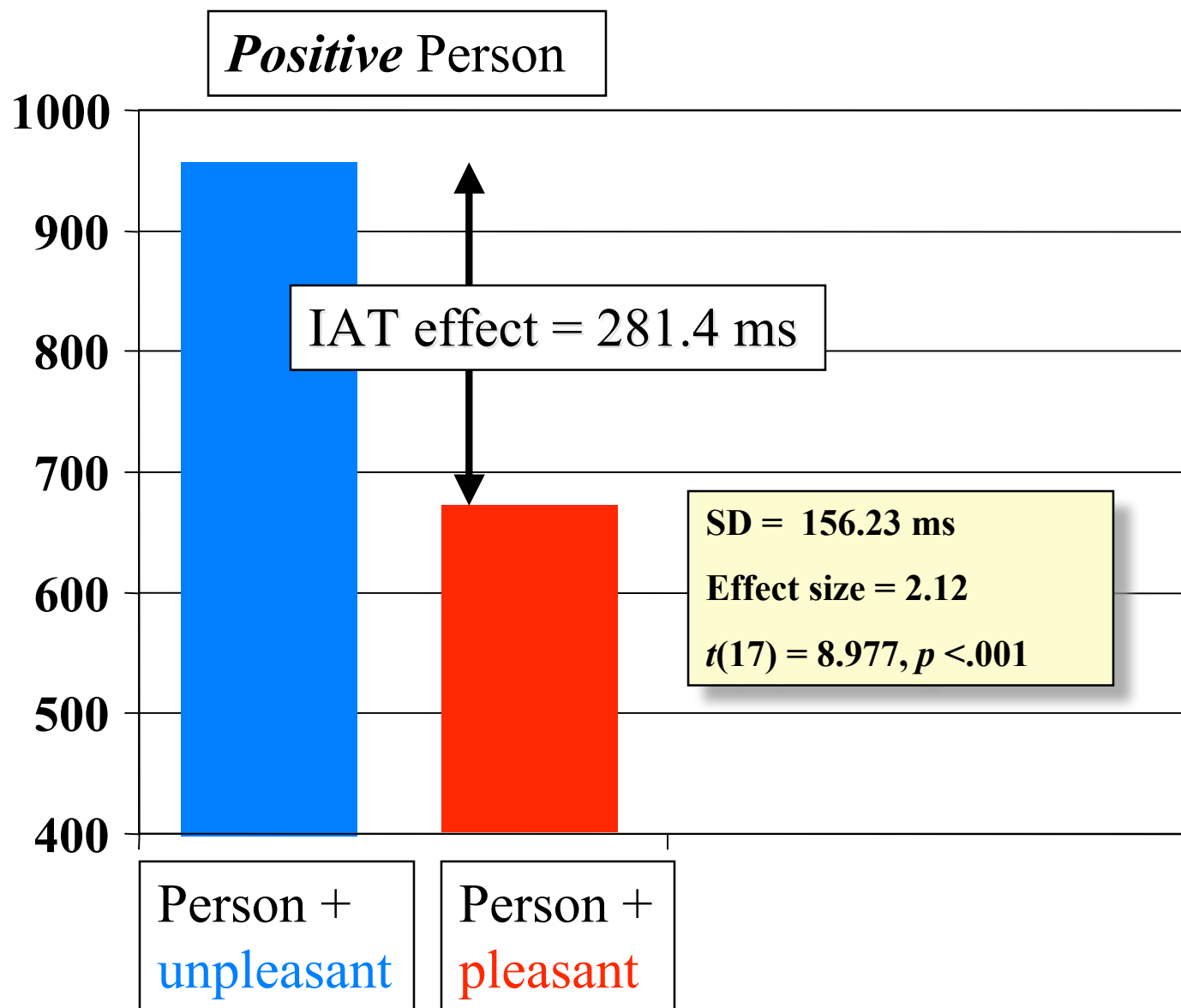
(1) IAT with a *positive* significant person as the target

e.g., “Michael” vs “Not Michael”

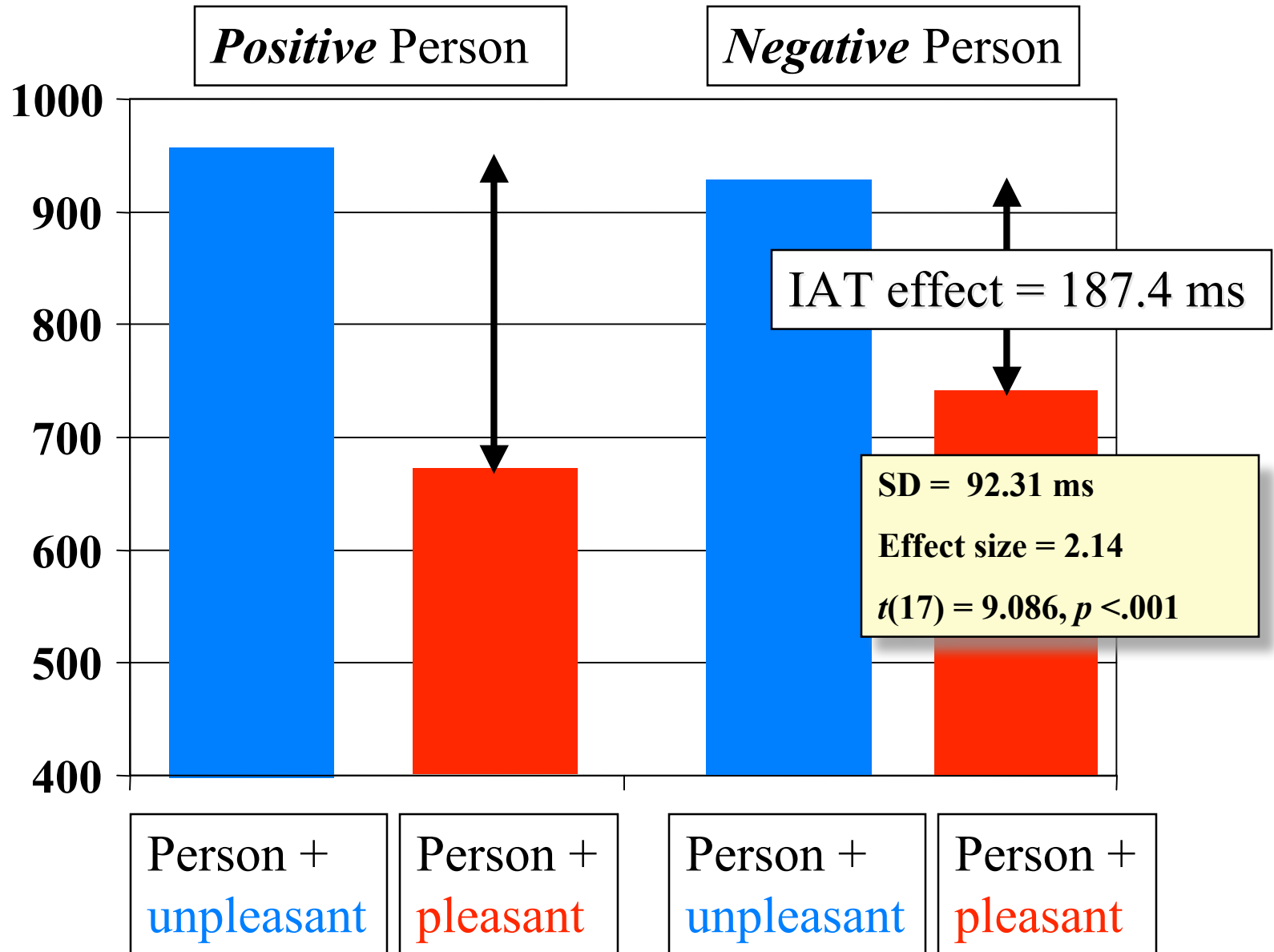
(2) IAT with a *negative* significant person as the target

e.g., “Dennis” vs “Not Dennis”

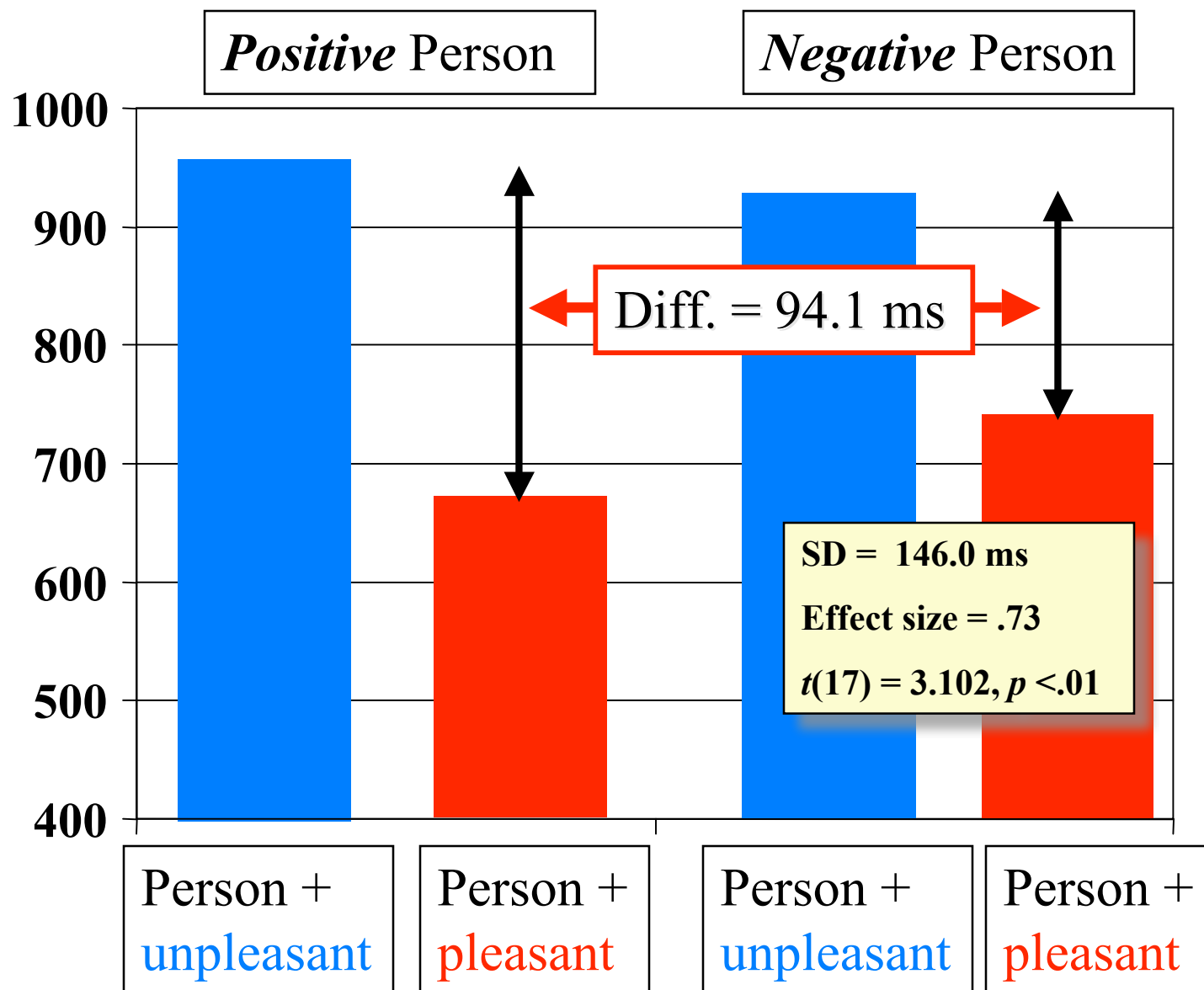
Mean reaction times in ms.



Mean reaction times in ms.

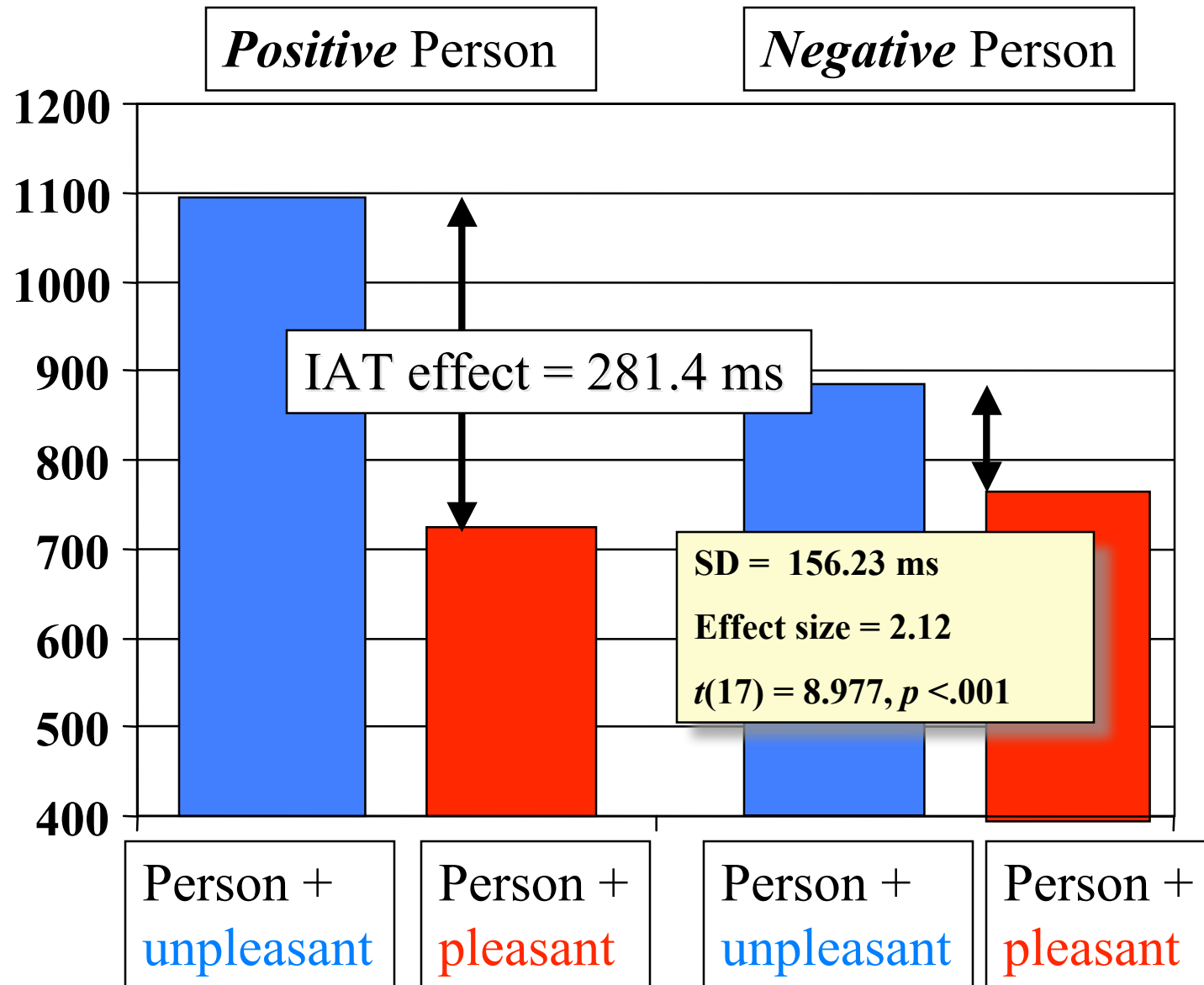


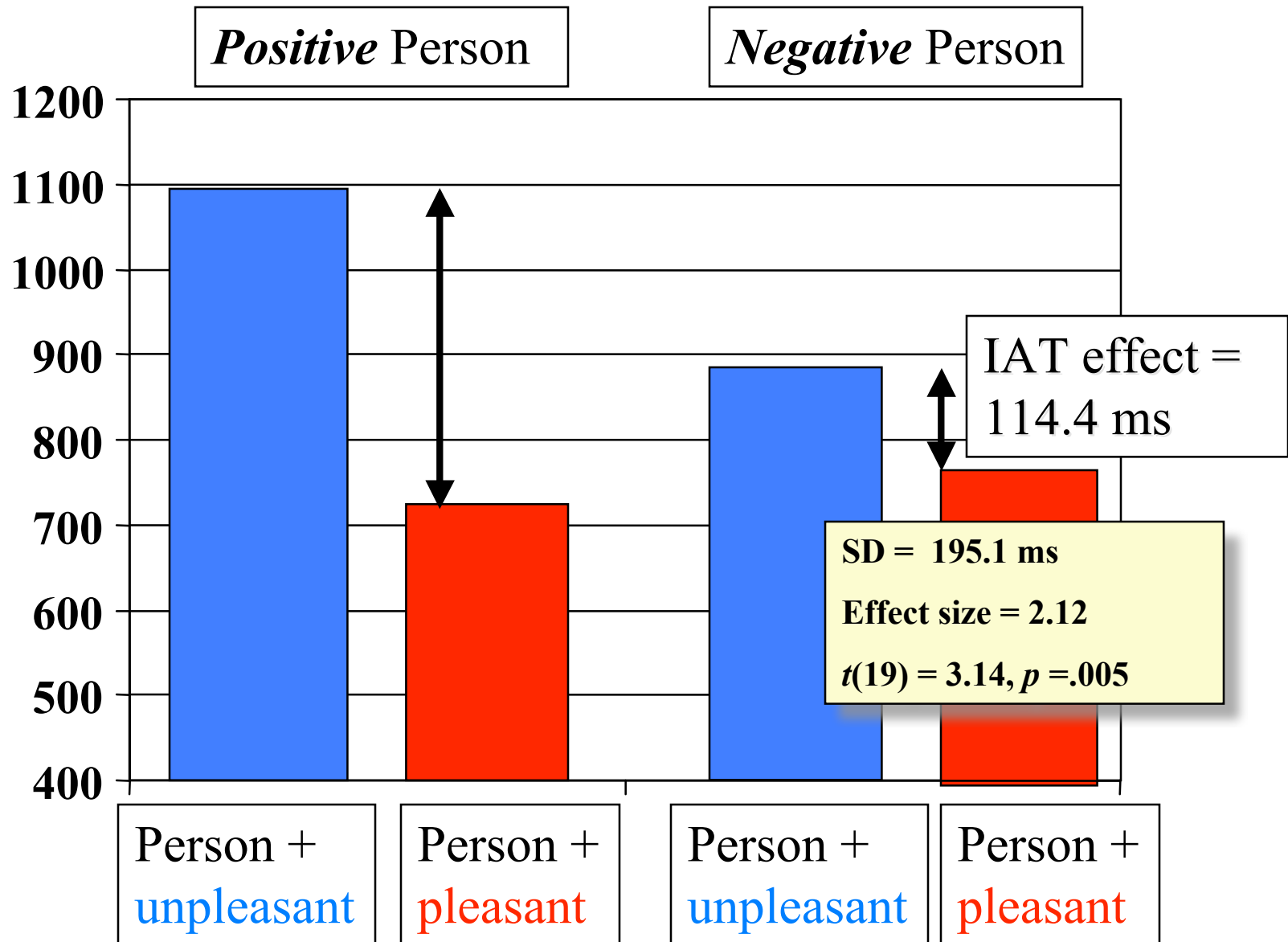
Mean reaction times in ms.

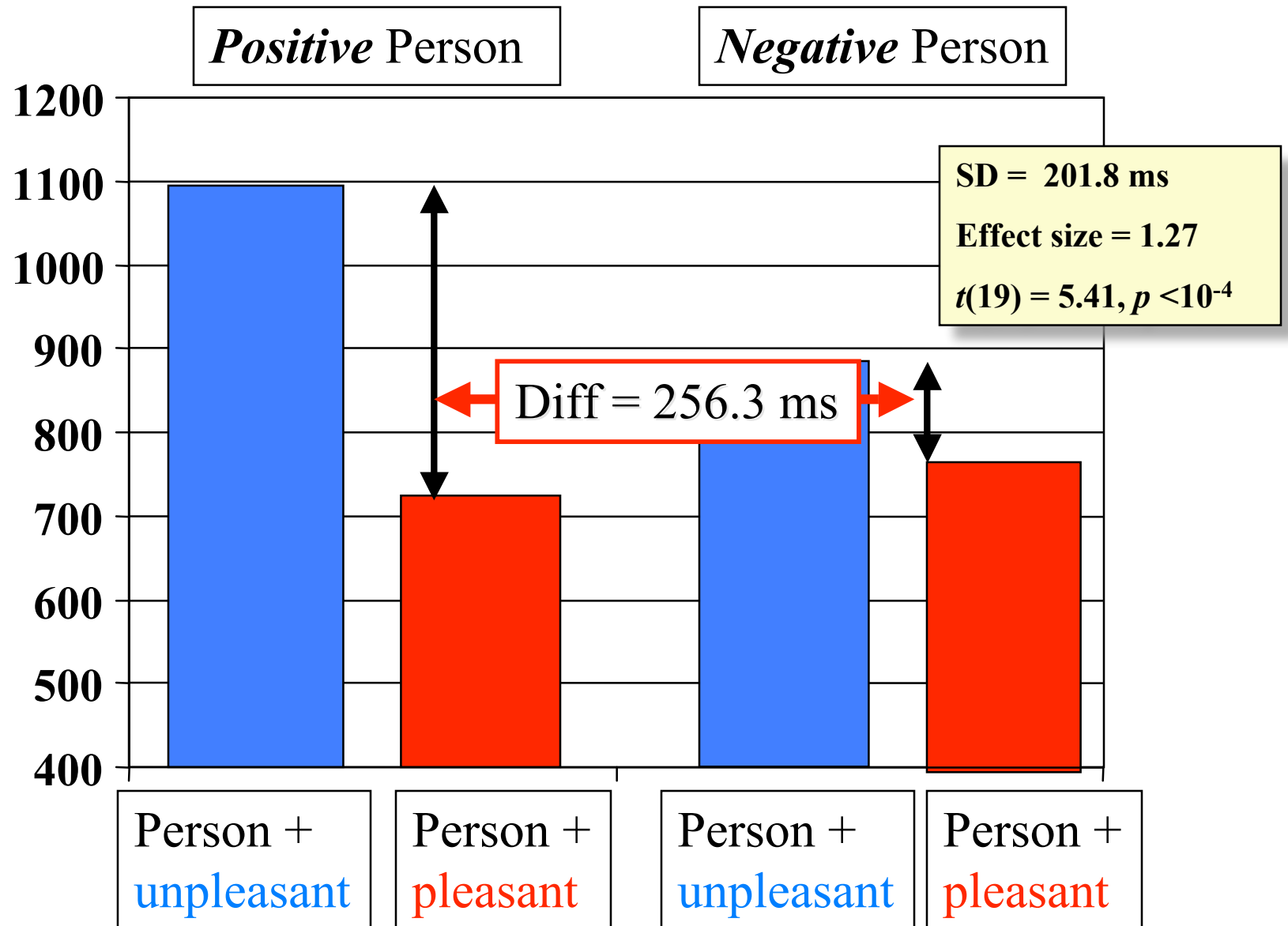


Sample 2

$N=20$







Study 2

Examine the relationship between
automatic evaluative reactions and:

Examine the relationship between automatic evaluative reactions and:

- explicit measures of attitude

Examine the relationship between automatic evaluative reactions and:

- explicit measures of attitude
- personality and dyadic characteristics

Examine the relationship between automatic evaluative reactions and:

- explicit measures of attitude
- personality and dyadic characteristics
- adult attachment styles

Examine the relationship between automatic evaluative reactions and:

- explicit measures of attitude
- personality and dyadic characteristics
- adult attachment styles
- receipt of psychological abuse

- Relationship between automatic associations toward romantic partner and mother

Procedure (N=85)

- prescreening
- experimental sessions:
 - current romantic partner
 - mother
 - self

Target concept category labels:

Steve

not Steve

Mom

not Mom

Me

not Me

Generating stimuli idiographically

- Middle name
- Last name
- City
- State
- Hair-color

Evaluative attributes:

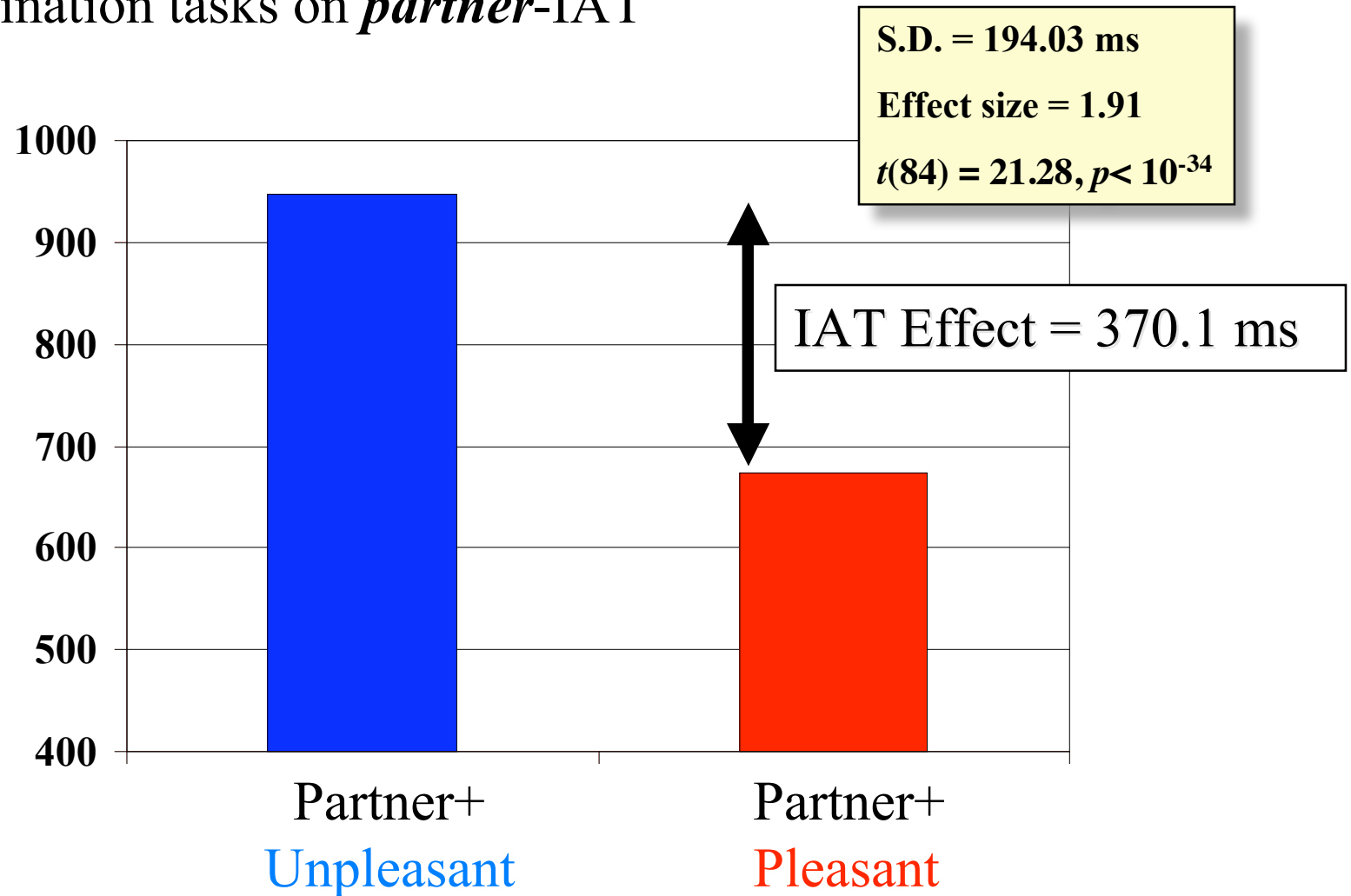
Self	pleasant-unpleasant
Partner	pleasant-unpleasant
Mom	supportive-rejecting

Supportive vs. *Rejecting*

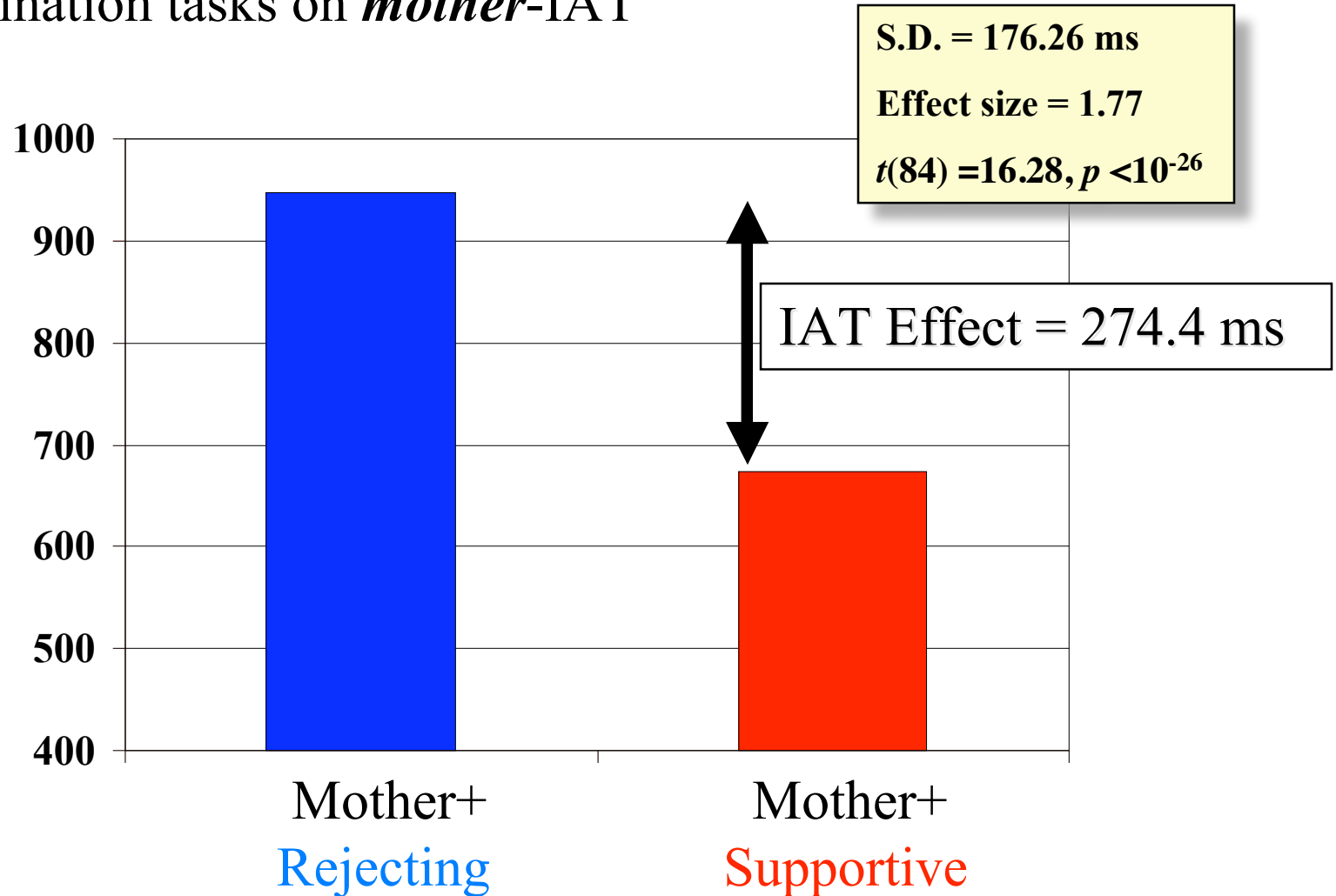
- sensitive
- caring
- responsive
- nurturing

- critical
- intolerant
- distant
- indifferent

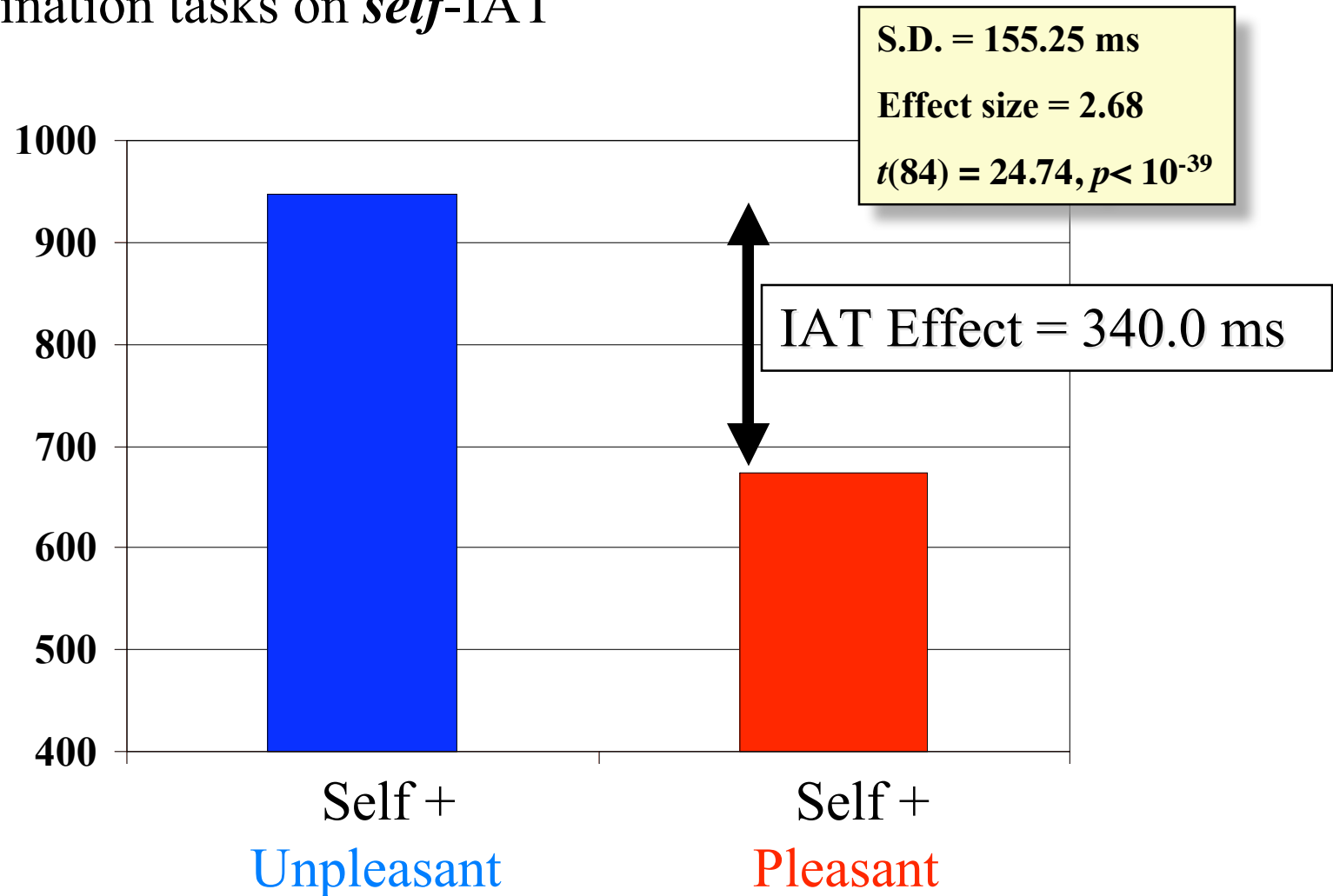
Mean reaction times (in ms) for combined discrimination tasks on *partner*-IAT



Mean reaction times (in ms) for combined discrimination tasks on *mother*-IAT



Mean reaction times (in ms) for *combined* discrimination tasks on *self*-IAT



3 explicit measures of attitude

- current romantic partner - Liking & Loving scales

(Rubin, 1970)

- mother - Parental Bonding Instrument (PBI)

(Parker, Tupling, & Brown, 1979)

- self - Global self-esteem (Rosenberg, 1965)

	Implicit Association Test		
	Partner	Mother	Self
Explicit measures			
Partner	.36***	.16	-.02
Mother	.14	.24*	-.03
Self	.01	.16	.04

Partner-IAT

Length of relationship

.30**

Partner-IAT

Length of relationship	.30**
Emotional commitment	.23*

Partner-IAT

Length of relationship	.30**
Emotional commitment	.23*
Expectations regarding future of relationship	
<i>Last one year</i>	.34***
<i>Last five years</i>	.29**
<i>Future</i>	.25*

Partner-IAT

Length of relationship	.30**
Emotional commitment	.23*
Expectations regarding future of relationship	
<i>Last one year</i>	.34***
<i>Last five years</i>	.29**
<i>Future</i>	.25*
Dyadic Adjustment Scale (DAS)	
<i>Affection</i>	.14
<i>Cohesion</i>	.07
<i>Consensus</i>	.09
<i>Satisfaction</i>	.22*
<i>Overall DAS</i>	.13

Partner-IAT

Length of relationship	.30**
Emotional commitment	.23*
Expectations regarding future of relationship	
<i>Last one year</i>	.34***
<i>Last five years</i>	.29**
<i>Future</i>	.25*
Dyadic Adjustment Scale (DAS)	
<i>Affection</i>	.25*
<i>Cohesion</i>	.06
<i>Consensus</i>	.14
<i>Satisfaction</i>	.34***
<i>Overall DAS</i>	.24*

Partner-IAT

Length of relationship	.30**
Emotional commitment	.23*
Expectations regarding future of relationship	
<i>Last one year</i>	.34***
<i>Last five years</i>	.29**
<i>Future</i>	.25*
Dyadic Adjustment Scale (DAS)	
<i>Affection</i>	.14
<i>Cohesion</i>	.07
<i>Consensus</i>	.09
<i>Satisfaction</i>	.22*
<i>Overall DAS</i>	.13
Styles of Handling Interpersonal Conflict (SHIC)	
<i>Obliging</i>	.40****
<i>Dominating</i>	.02
<i>Integrating</i>	.14
<i>Compromising</i>	.10
<i>Avoiding</i>	.08

Partner-IAT

Length of relationship	.30**
Emotional commitment	.23*
Expectations regarding future of relationship	
<i>Last one year</i>	.34***
<i>Last five years</i>	.29**
<i>Future</i>	.25*
Dyadic Adjustment Scale (DAS)	
<i>Affection</i>	.14
<i>Cohesion</i>	.07
<i>Consensus</i>	.09
<i>Satisfaction</i>	.22*
<i>Overall DAS</i>	.13
Styles of Handling Interpersonal Conflict (SHIC)	
<i>Obliging</i>	.40****
<i>Dominating</i>	.02
<i>Integrating</i>	.14
<i>Compromising</i>	.10
<i>Avoiding</i>	.08
Social Anxiety	-.28*

Partner-IAT

Length of relationship	.30**
Emotional commitment	.23*
Expectations regarding future of relationship	
<i>Last one year</i>	.34***
<i>Last five years</i>	.29**
<i>Future</i>	.25*
Dyadic Adjustment Scale (DAS)	
<i>Affection</i>	.14
<i>Cohesion</i>	.07
<i>Consensus</i>	.09
<i>Satisfaction</i>	.22*
<i>Overall DAS</i>	.13
Styles of Handling Interpersonal Conflict (SHIC)	
<i>Obliging</i>	.40****
<i>Dominating</i>	.02
<i>Integrating</i>	.14
<i>Compromising</i>	.10
<i>Avoiding</i>	.08
Social Anxiety	-.28*
Interpersonal expectancies	.19

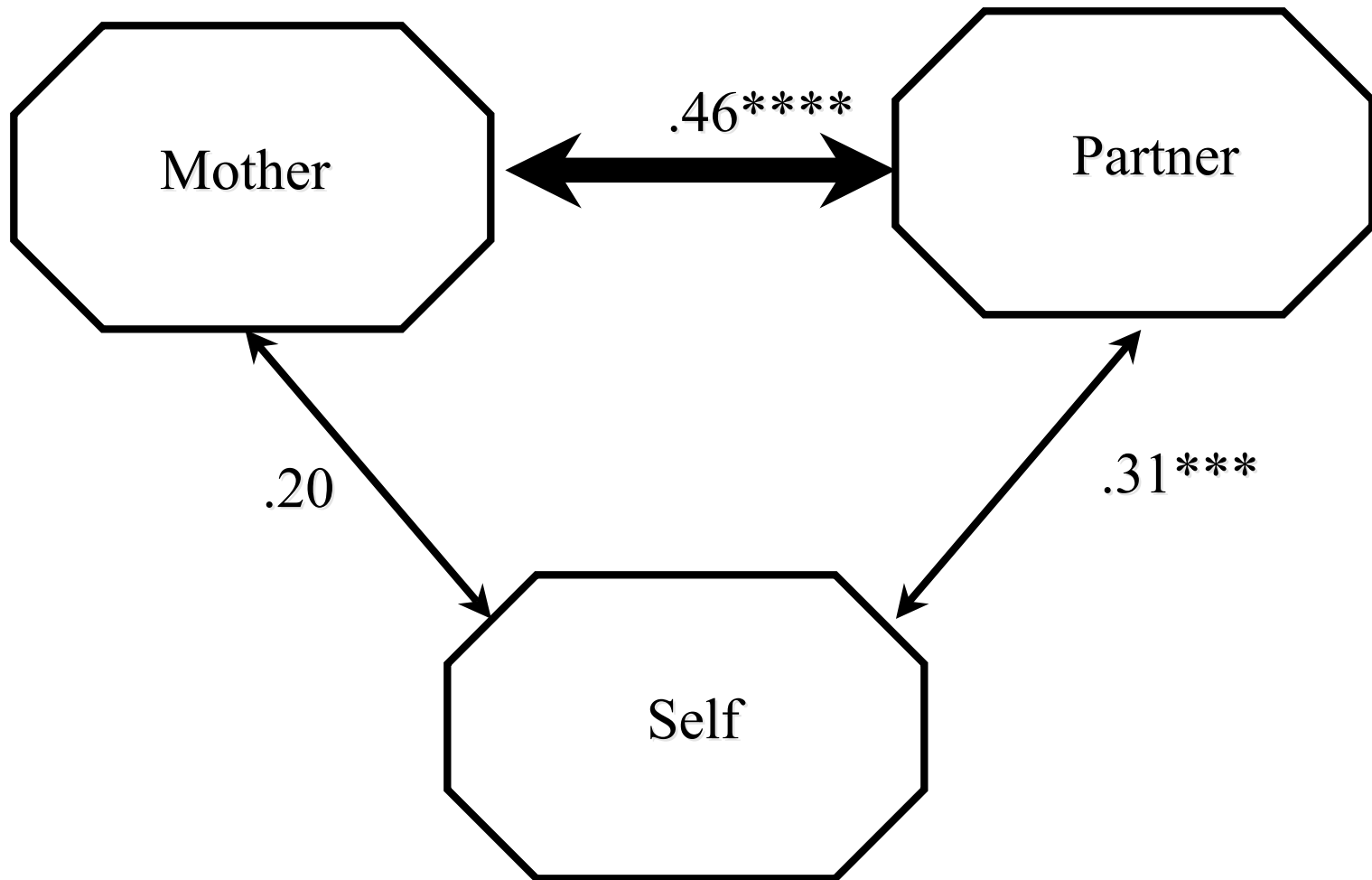
Mother-IAT

Length of relationship	.18
Emotional commitment	.02
Expectations regarding future of relationship	
<i>Last one year</i>	.07
<i>Last five years</i>	.18
<i>Future</i>	.08
Dyadic Adjustment Scale (DAS)	
<i>Affection</i>	.05
<i>Cohesion</i>	.00
<i>Consensus</i>	.09
<i>Satisfaction</i>	.08
<i>Overall DAS</i>	.06
Styles of Handling Interpersonal Conflict (SHIC)	
<i>Obliging</i>	.17
<i>Dominating</i>	.17
<i>Integrating</i>	.16
<i>Compromising</i>	.14
<i>Avoiding</i>	.07
Social Anxiety	-.05
Interpersonal expectancies	.16

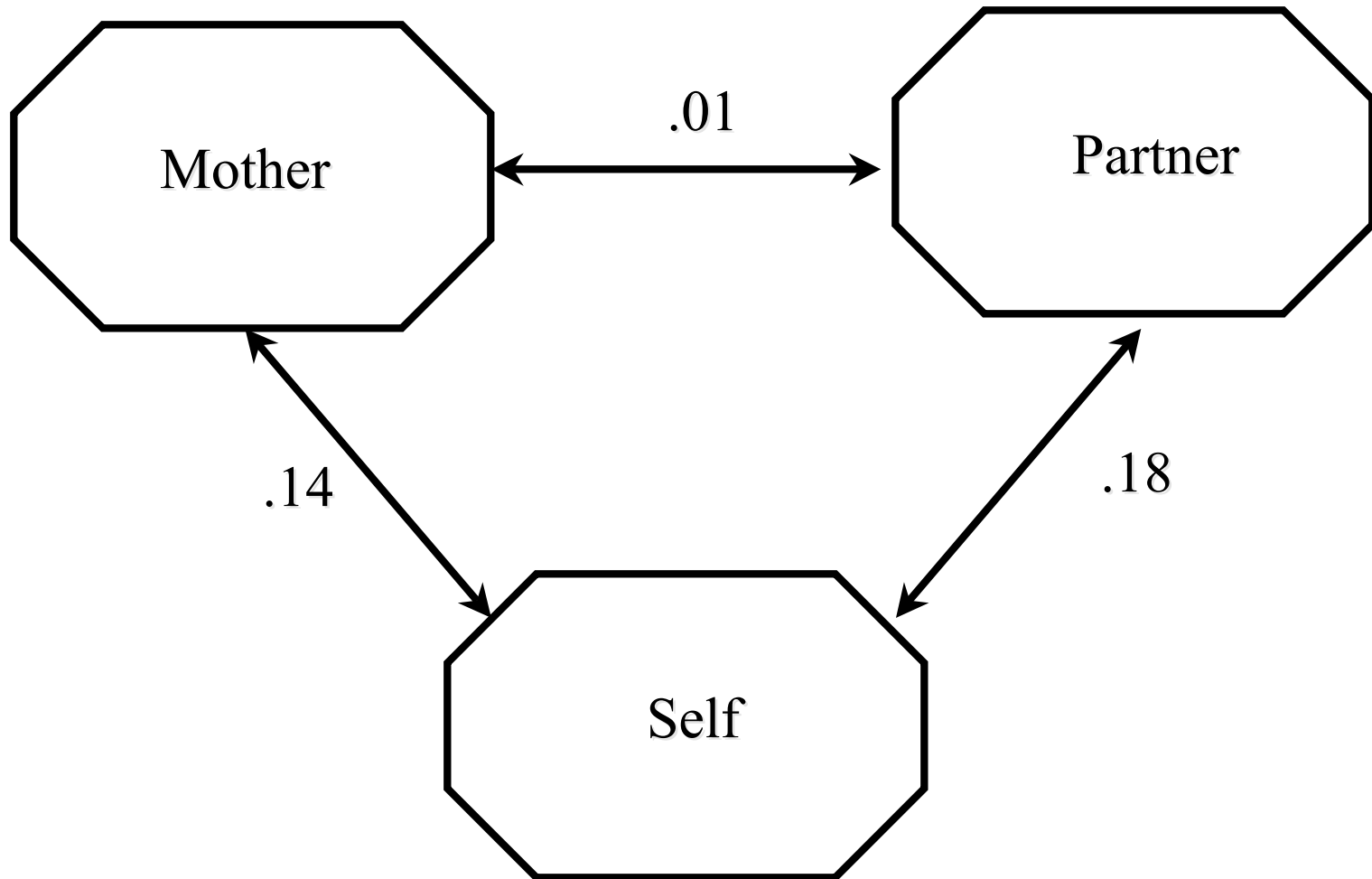
Self-IAT

Length of relationship	.25*
Emotional commitment	.19
Expectations regarding future of relationship	
<i>Last one year</i>	.19
<i>Last five years</i>	.06
<i>Future</i>	.01
Dyadic Adjustment Scale (DAS)	
<i>Affection</i>	-.05
<i>Cohesion</i>	.00
<i>Consensus</i>	-.12
<i>Satisfaction</i>	-.02
<i>Overall DAS</i>	-.07
Styles of Handling Interpersonal Conflict (SHIC)	
<i>Obliging</i>	.17
<i>Dominating</i>	.16
<i>Integrating</i>	-.04
<i>Compromising</i>	.13
<i>Avoiding</i>	.26*
Social Anxiety	-.05
Interpersonal expectancies	.01

IAT



Explicit Measures



Positive Other

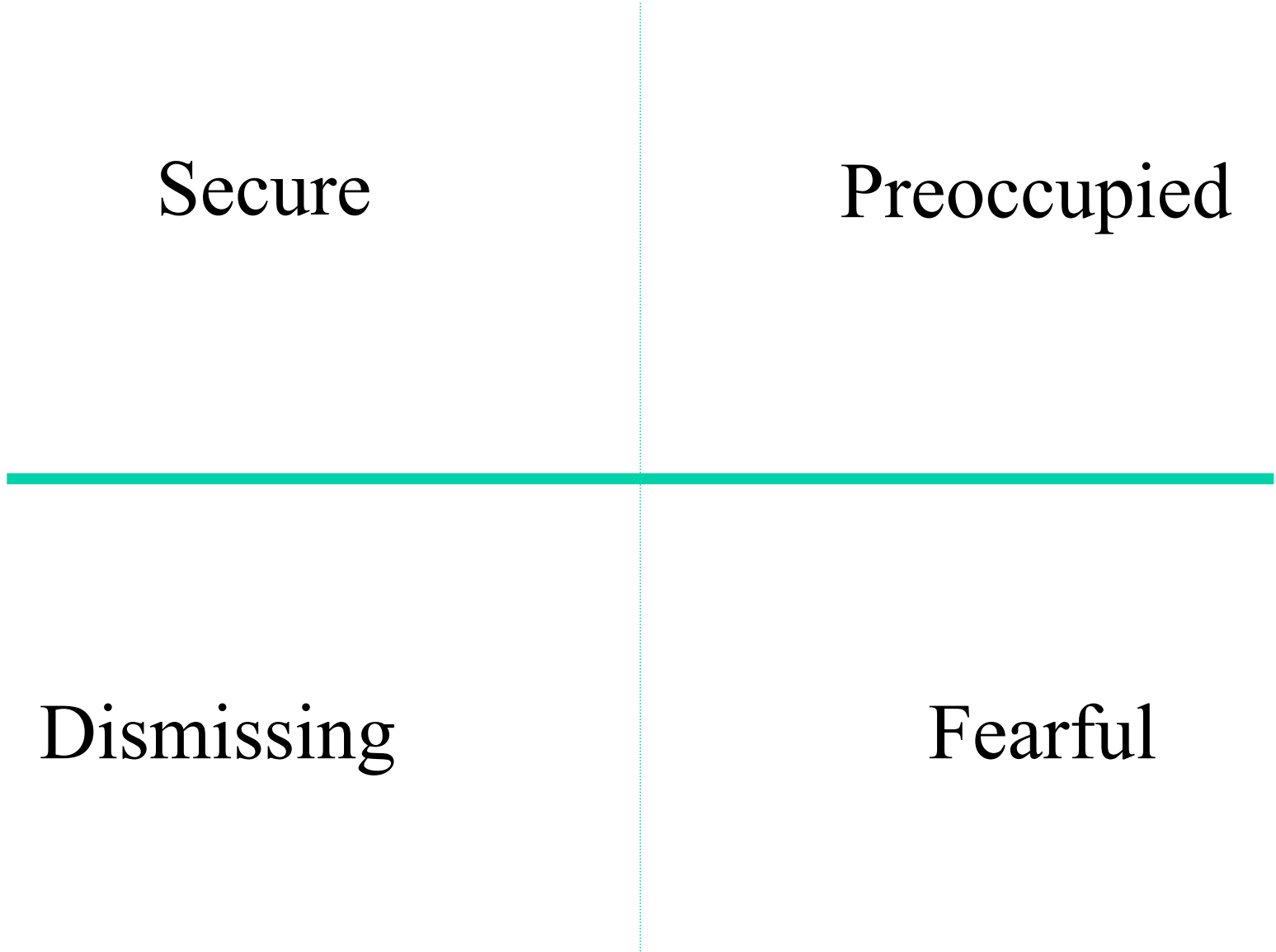
Secure

Preoccupied

Dismissing

Fearful

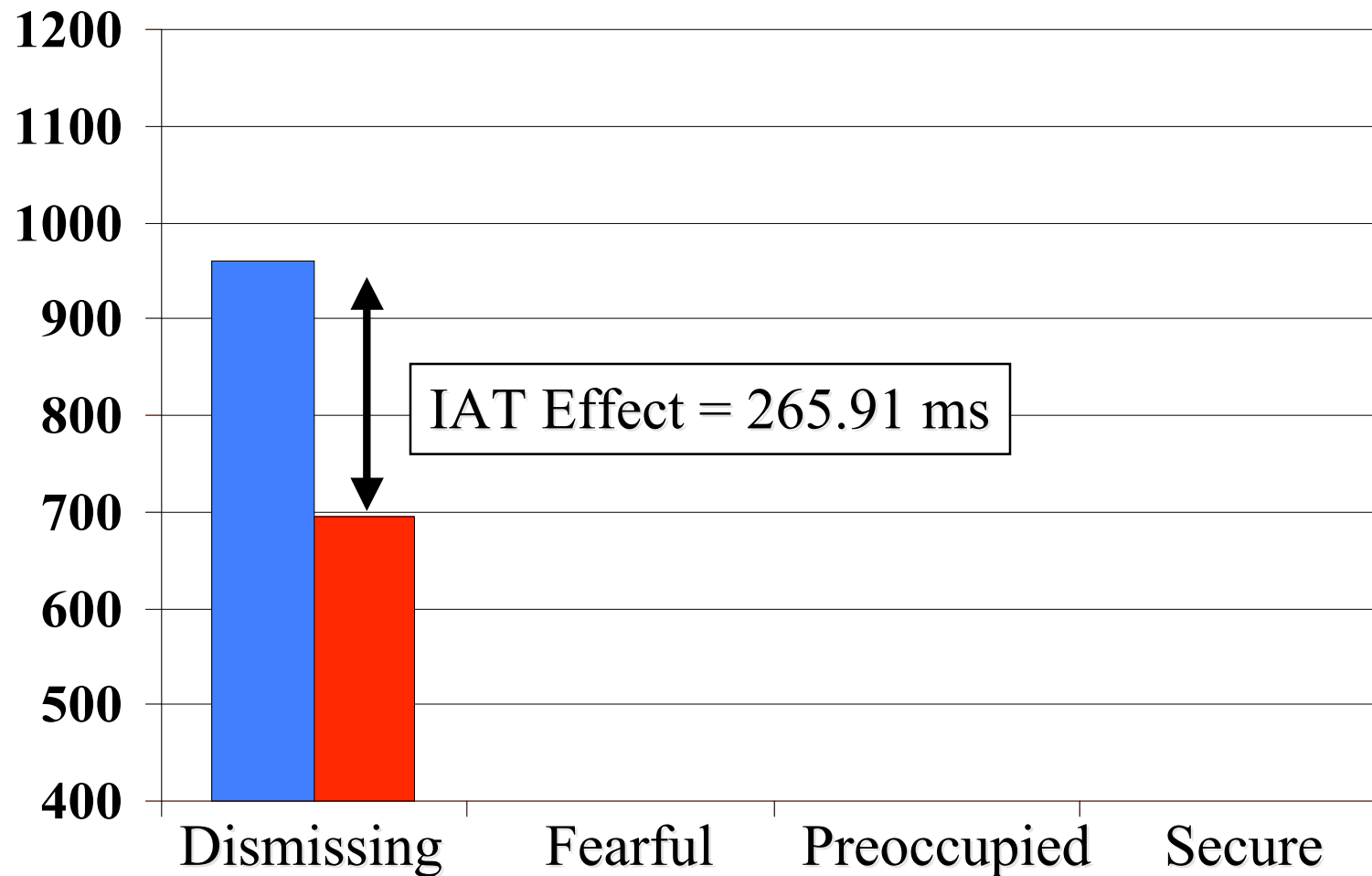
Negative Other



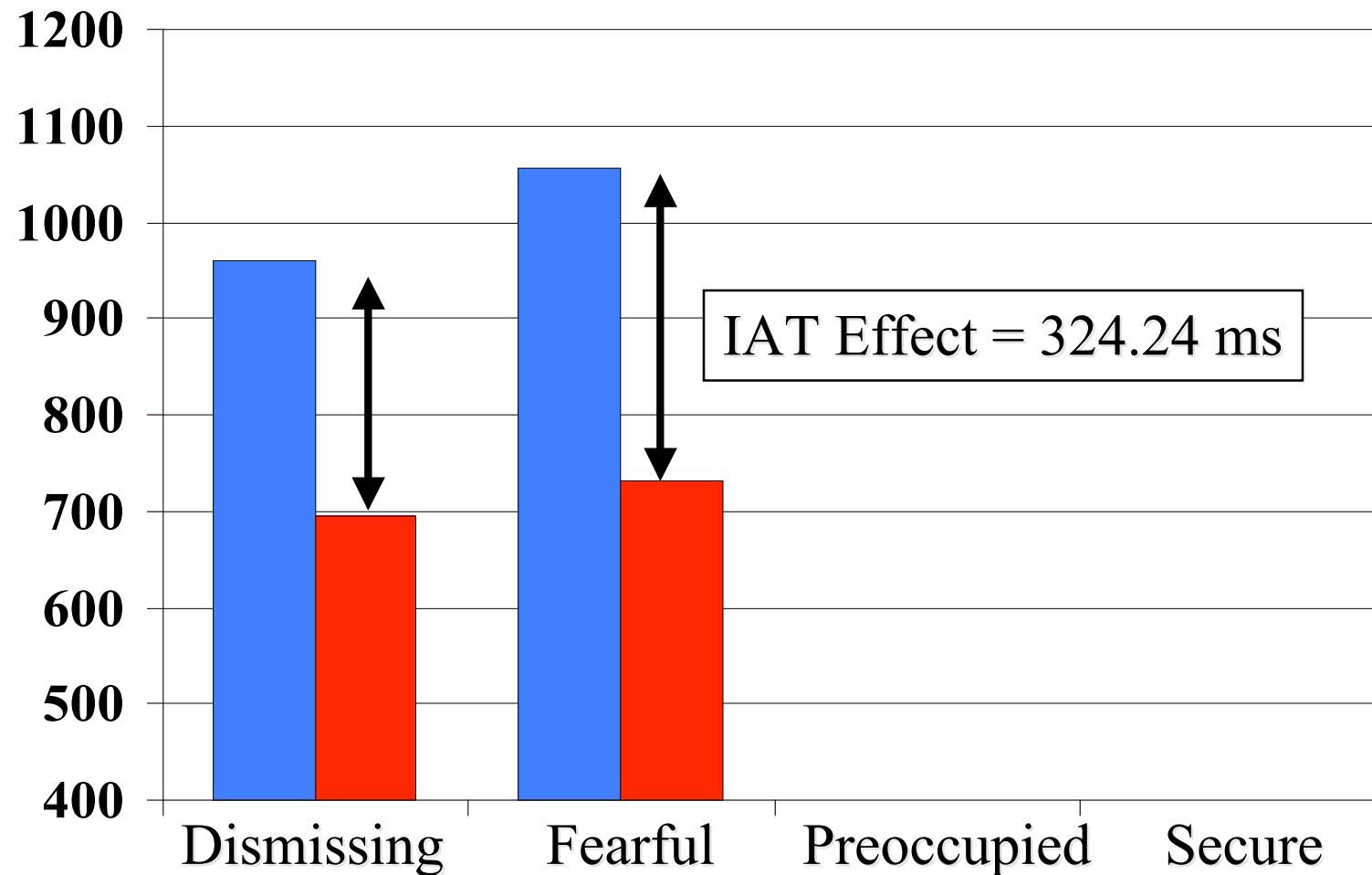
Secure

It is relatively easy for me to become emotionally close to others. I am comfortable depending on others and having others depend on me. I don't worry about being alone or having others not accept me.

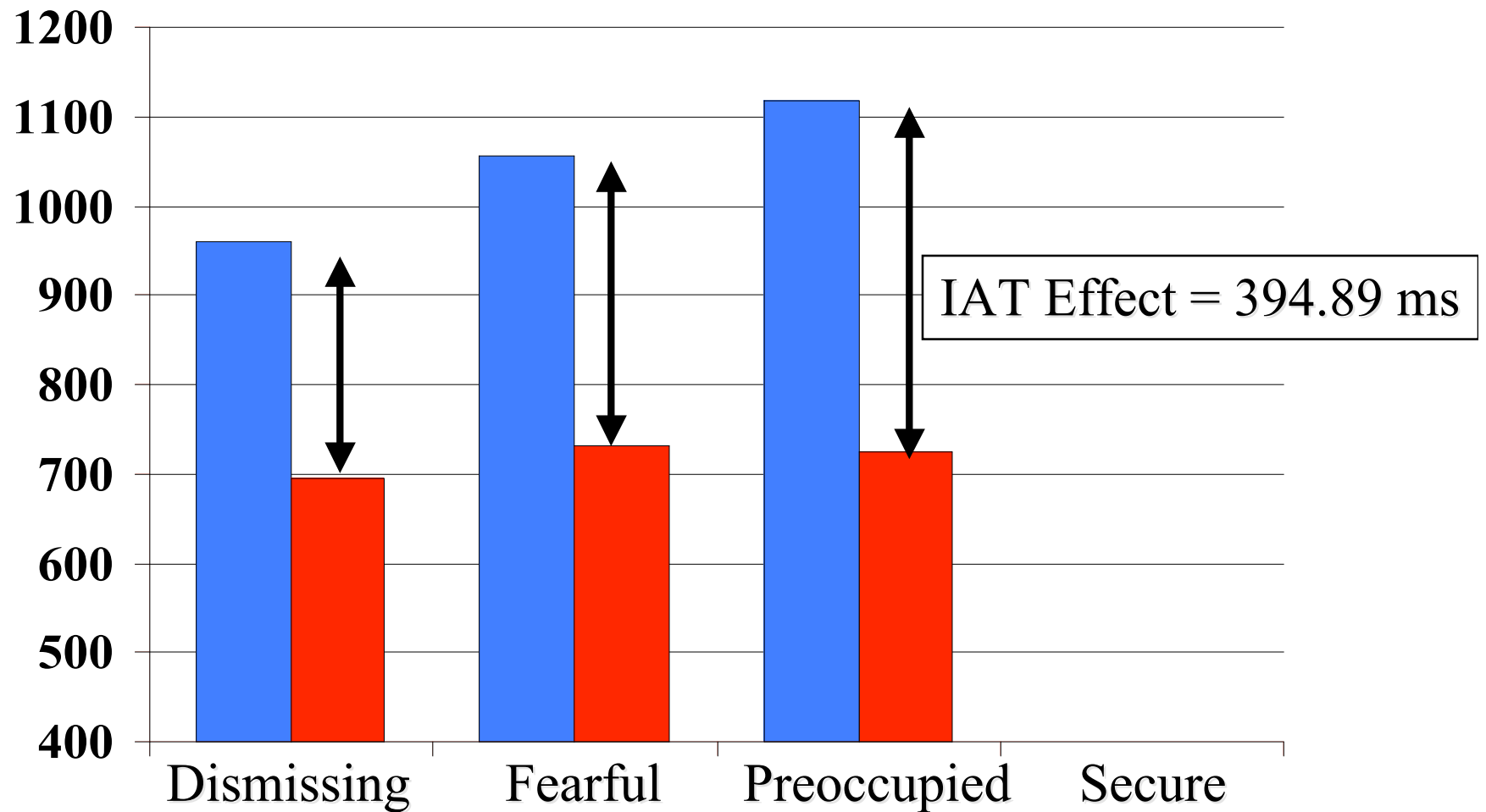
Mean reaction times for combined discrimination tasks (in ms)
on *Partner*-IAT by adult attachment style



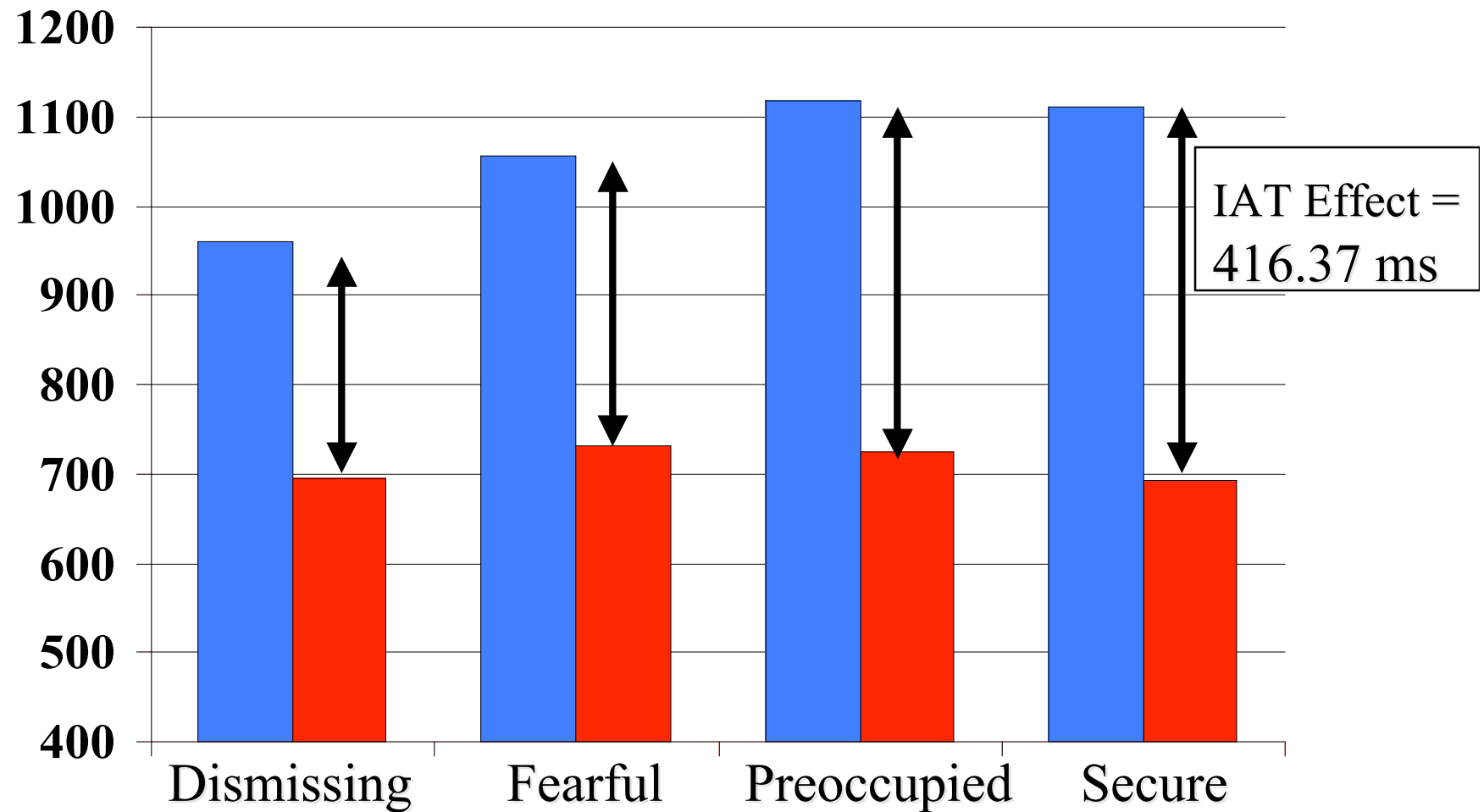
Mean reaction times for combined discrimination tasks (in ms)
on *Partner*-IAT by adult attachment style



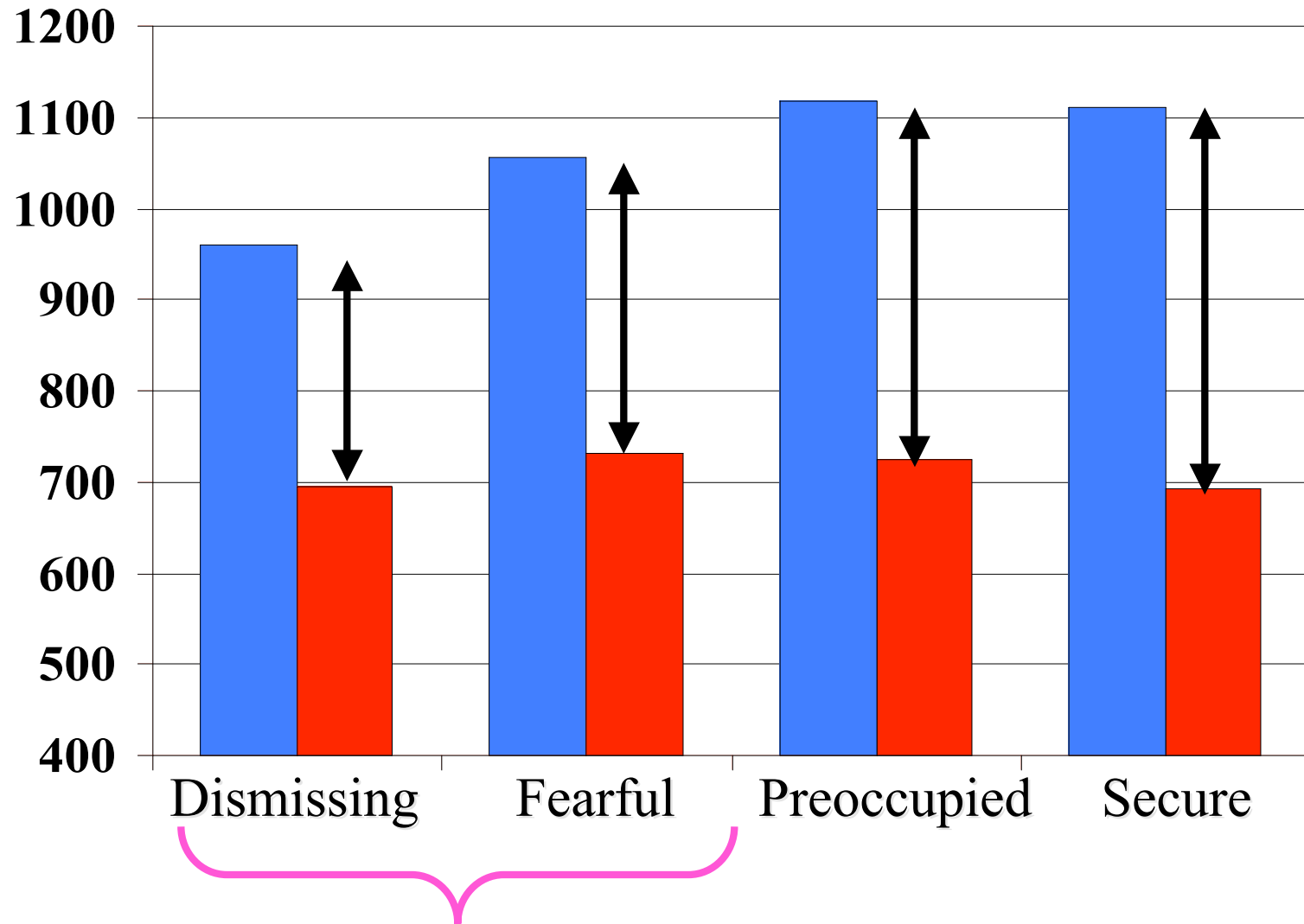
Mean reaction times for combined discrimination tasks (in ms)
on *Partner*-IAT by adult attachment style



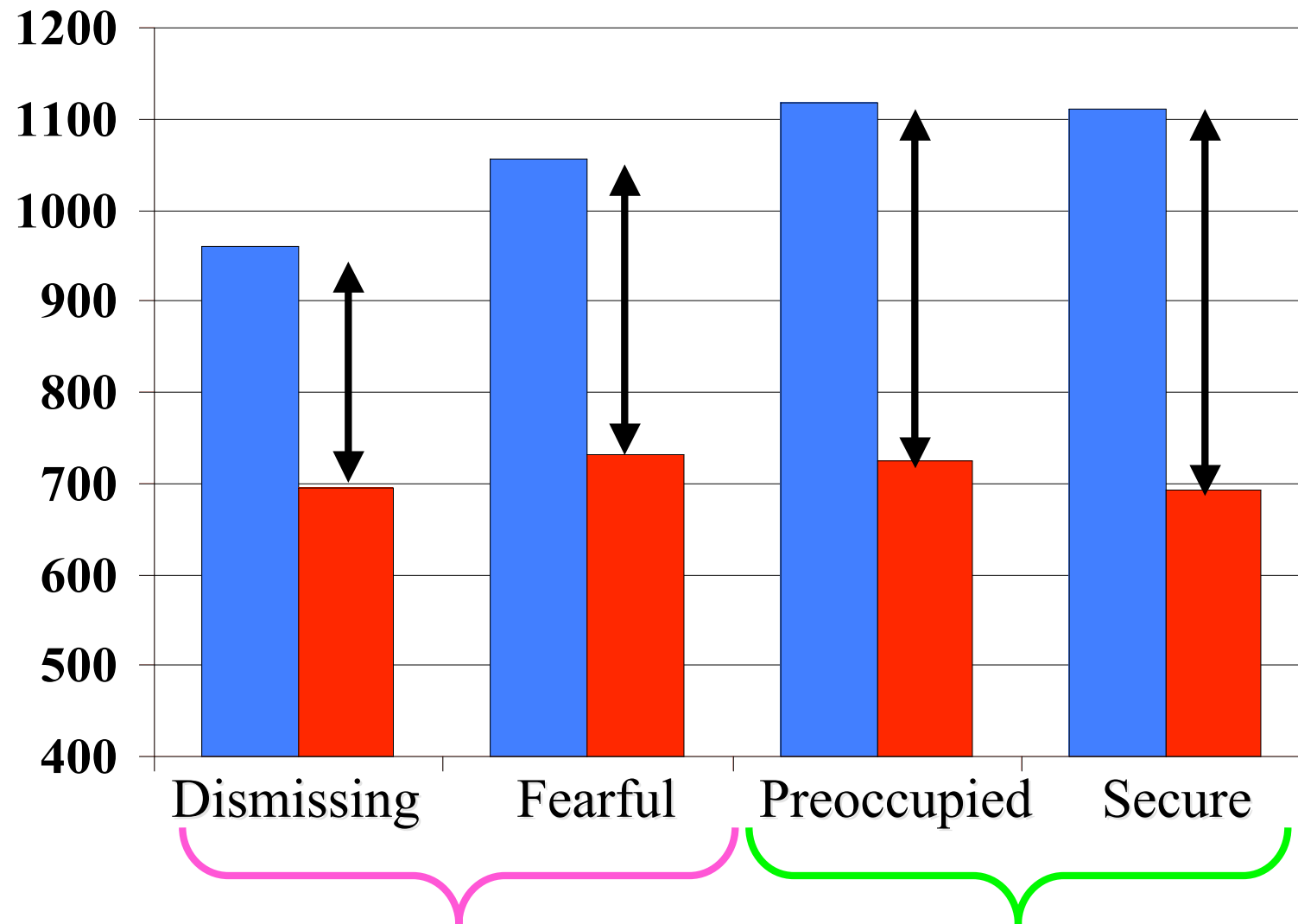
Mean reaction times for combined discrimination tasks (in ms)
on *Partner*-IAT by adult attachment style



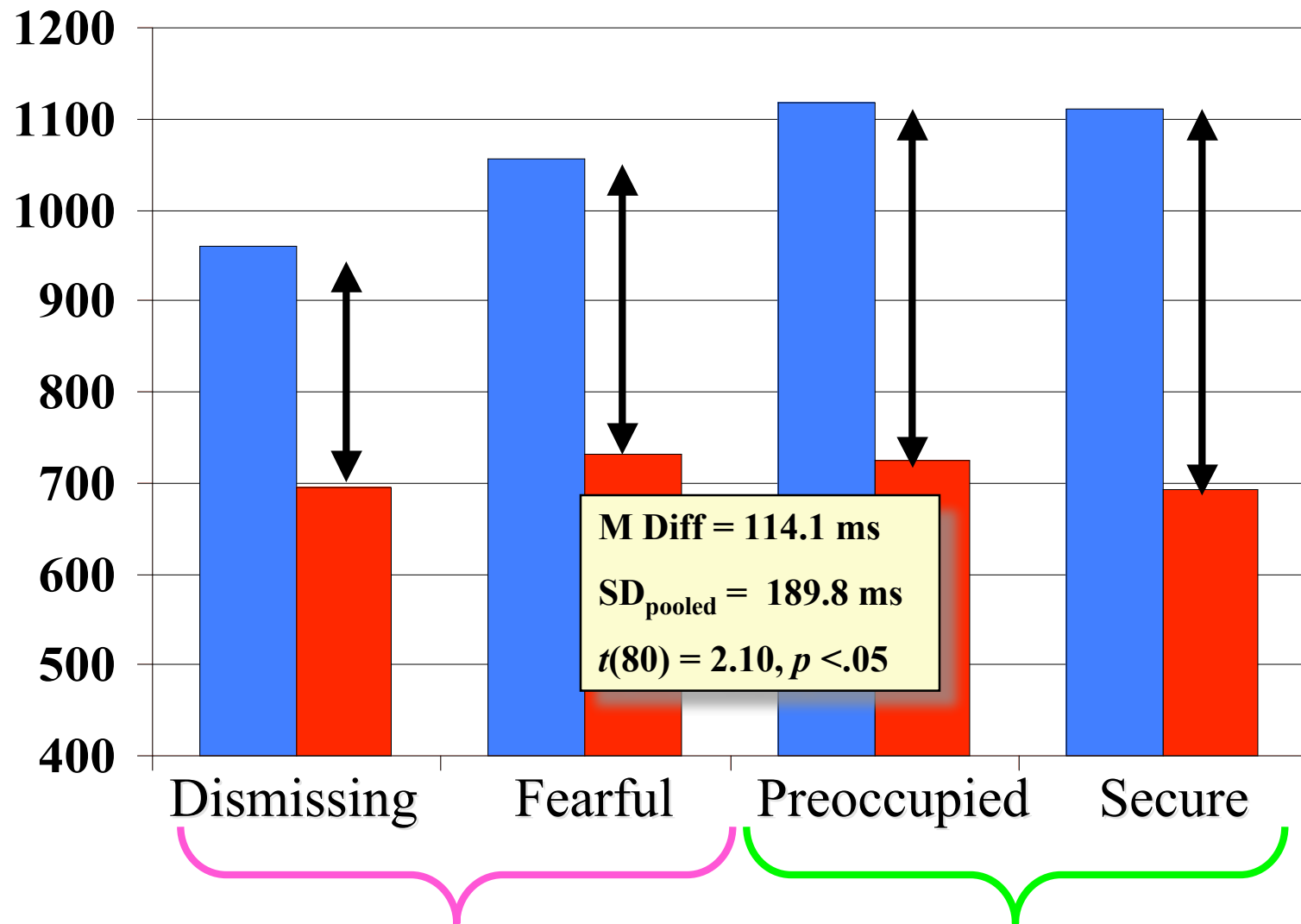
Mean reaction times for combined discrimination tasks (in ms)
on *Partner*-IAT by adult attachment style



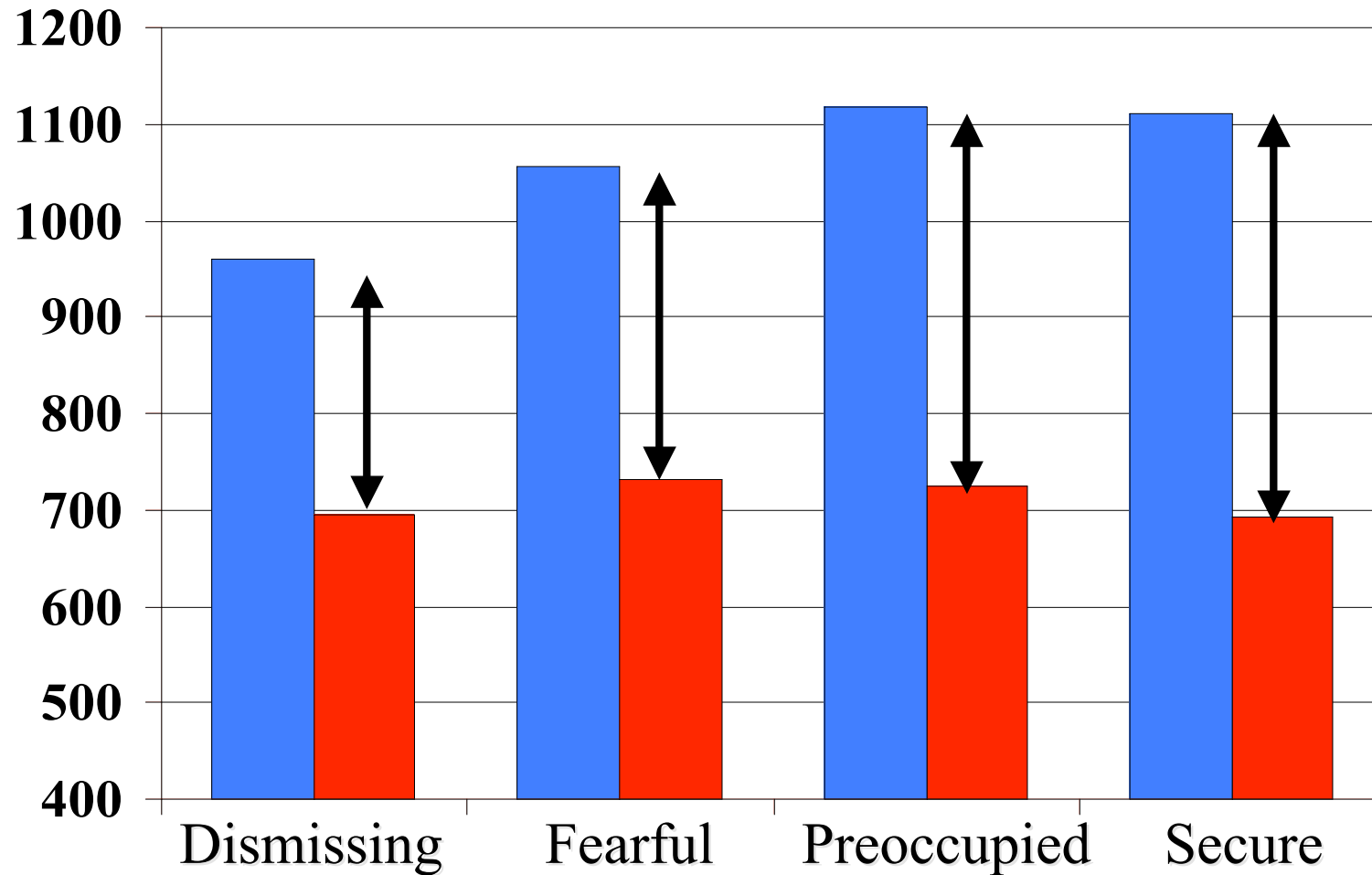
Mean reaction times for combined discrimination tasks (in ms)
on *Partner*-IAT by adult attachment style



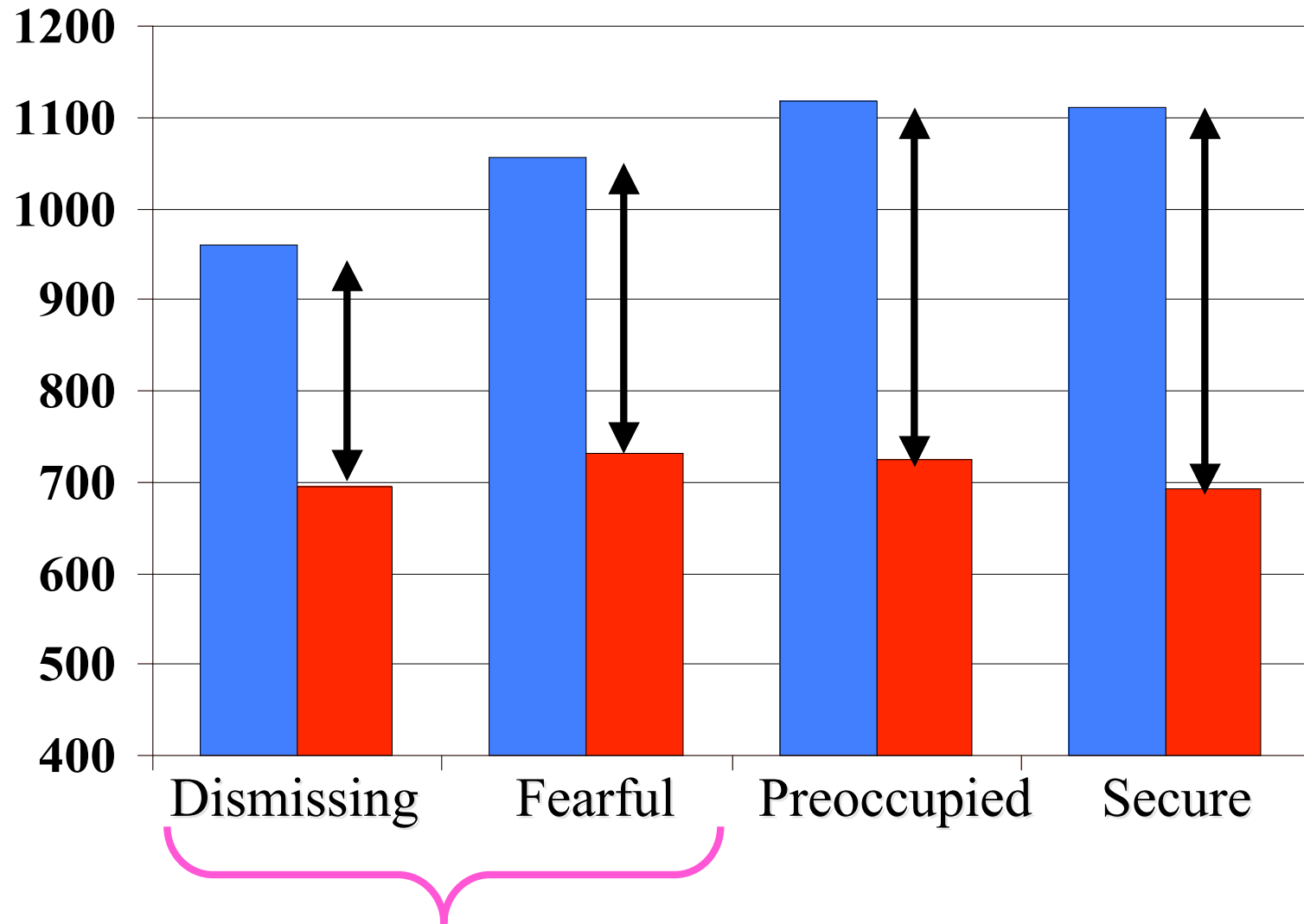
Mean reaction times for combined discrimination tasks (in ms)
on *Partner*-IAT by adult attachment style



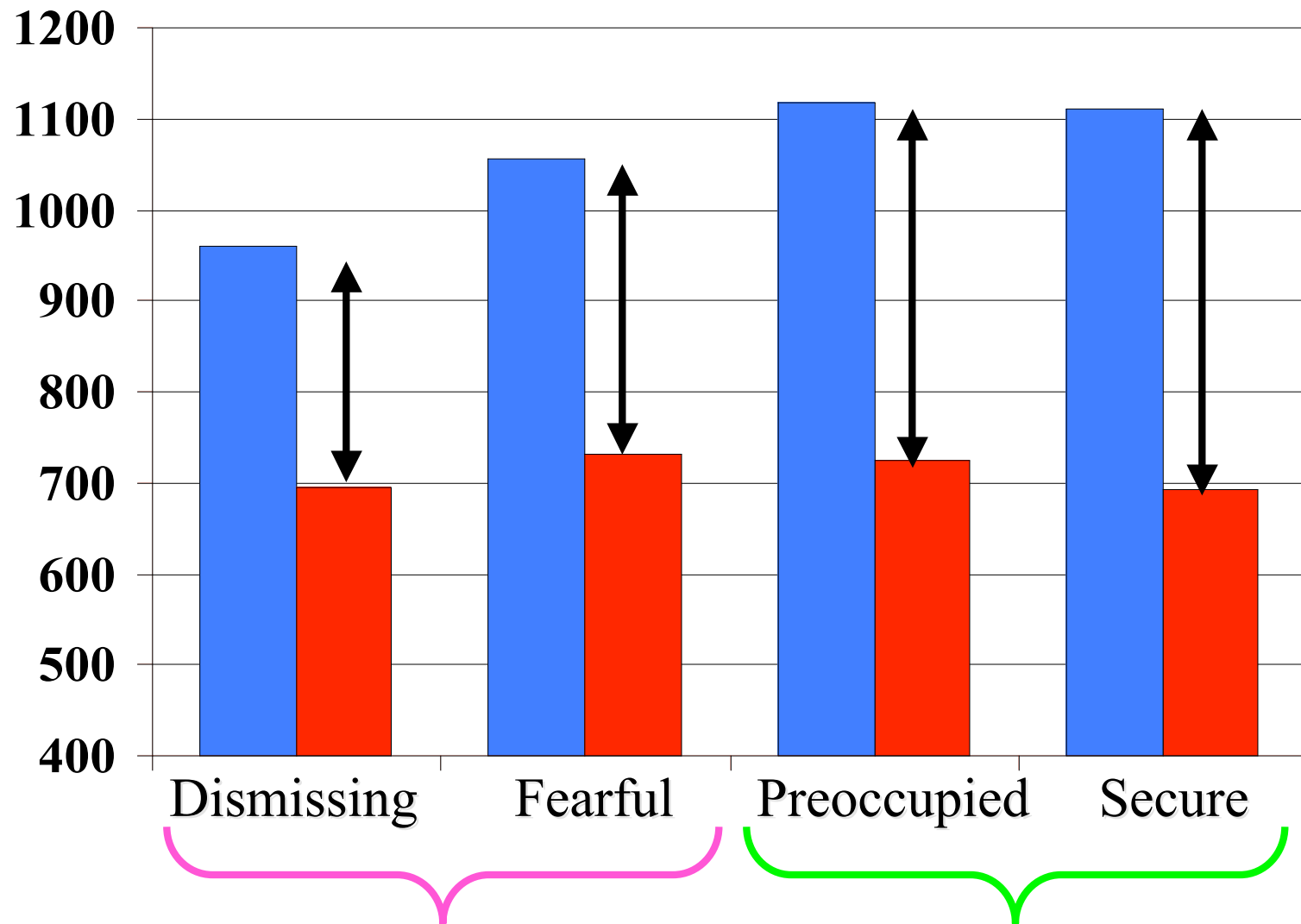
Mean reaction times for combined discrimination tasks (in ms)
on *Mother*-IAT by adult attachment style



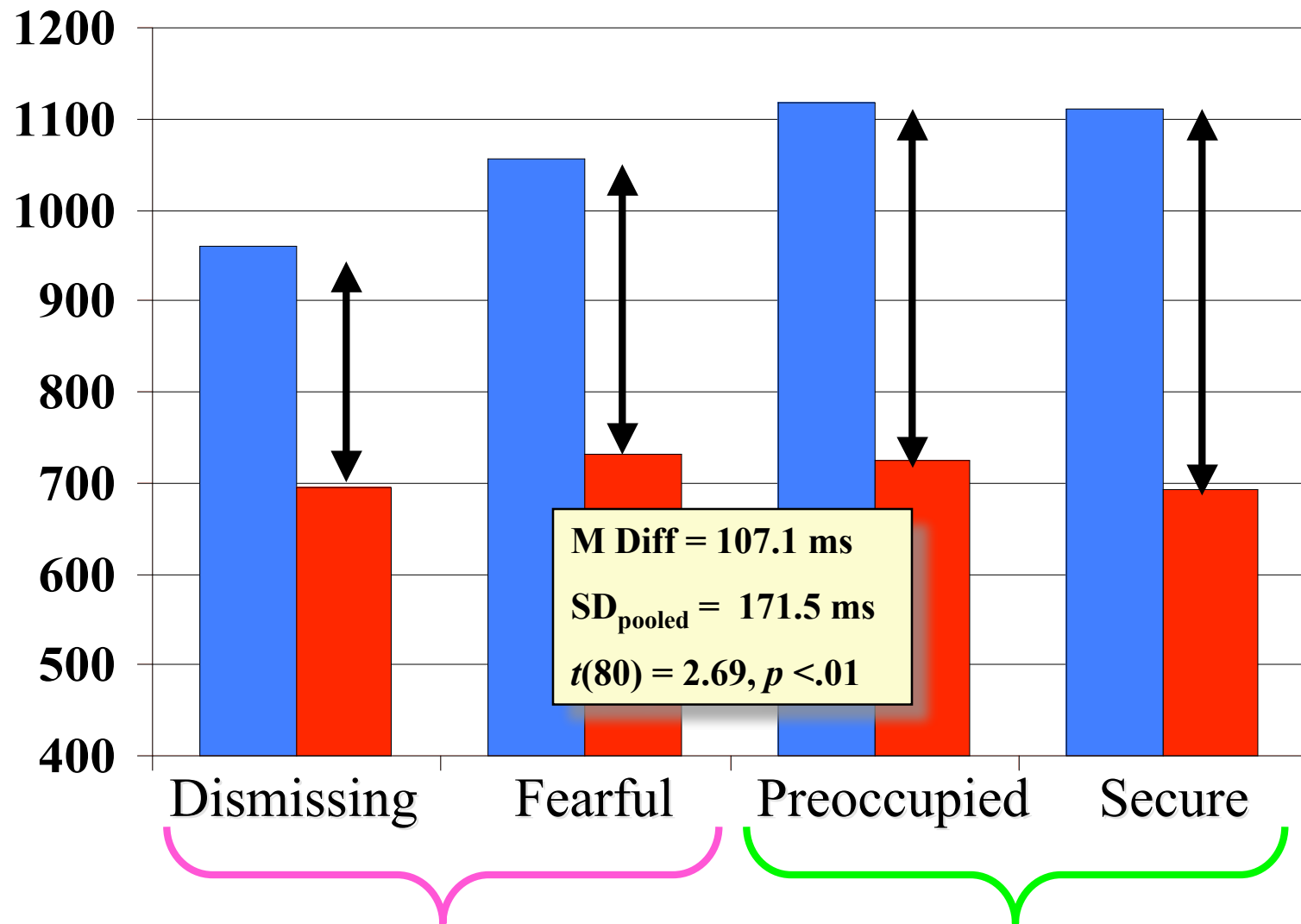
Mean reaction times for combined discrimination tasks (in ms)
on *Mother*-IAT by adult attachment style



Mean reaction times for combined discrimination tasks (in ms)
on *Mother*-IAT by adult attachment style



Mean reaction times for combined discrimination tasks (in ms)
on *Mother*-IAT by adult attachment style



Psychological Maltreatment Inventory (PMI)

PMI subscale and sample items

Positive behaviors

My partner let me talk about my feelings

Isolation and emotional control

My partner tried to keep me from doing things to help myself

Self-esteem

My partner treated me like I was stupid

Jealousy

My partner was jealous of my friends

Verbal Abuse

My partner swore at me

Withdrawal

My partner sulked and refused to talk about a problem

Sample items from the PBI:

Appeared to understand my problems and worries
Could make me feel better when I was upset
Was affectionate to me

Made me feel I wasn't wanted*
Did not talk with me very much*
Seemed emotionally cold to me*

* items were reverse scored

Beta weights for attitudes toward partner (i.e., explicit and implicit) and receipt of psychological abuse when controlling for sex, length of relationship, and attachment style.

	Explicit Attitudes	Partner-IAT
	β	β
Abuse Index	-.41***	-.24*
Positive items	.55****	.18
Isolation and emotional control	-.41***	-.15
Self –esteem	-.40***	-.28*
Jealousy	-.33**	-.14
Verbal abuse	-.49****	-.21, $p=.097$
Withdrawal	-.40****	-.27*

**** $p<.001$

*** $p<.005$

** $p<.01$

* $p<.05$

Beta weights for attitudes toward mother (i.e., explicit and implicit) and receipt of psychological abuse when controlling for sex, length of relationship, and attachment style.

	Recall of supportive behaviors	Mother-IAT
	β	β
Abuse Index	-.10	-.23*
Positive items	.08	.16
Isolation and emotional control	.01	-.17
Self –esteem	-.21, $p=.061$	-.32***
Jealousy	.07	.00
Verbal abuse	-.19, $p=.108$	-.27*
Withdrawal	-.11	-.25*

*** $p<.005$

** $p<.01$

* $p<.05$

Study 3

examine relationship between self-reported *infliction* of psychological abuse and mother-IAT

Procedures (N= 40 males)

- measures

- Parental Bonding Instrument
(Parker, Tupling, & Brown, 1979)
- Mother-IAT
- Reversed Psychological Maltreatment Inventory

Sample items from the reverse PMI

I put down my partner's appearance.

I was insensitive to my partner's feelings.

I brought up things from the past to hurt my partner.

Beta weights for attitudes toward mother (i.e., explicit and implicit) and infliction of psychological abuse

	Recall of supportive behaviors	Implicit Attitudes of Mother (Supportive v. Rejecting)
	β	β
Abuse Index	-.16	-.52***
Positive items	.17	.07
Isolation and emotional control	-.31*	-.26, p=.098
Self-esteem	-.12	-.24
Jealousy	-.11	-.47***
Verbal abuse	-.12	-.19
Withdrawal	-.11	-.45***
Threats to use physical violence	.12	-.47***

*** $p < .005$

** $p < .01$

* $p < .05$

Limitations:

psychological abuse v. physical abuse

self-report methods

college students

Special thanks to Sara Davison, Scott Lee-Tiernen, and Janell Stewart for their help in designing and implementing the studies presented.