

# Expressive Modifiers & Mixed Expressives

Daniel Gutzmann

University of Frankfurt

CSSP 2009 – September 24, 2009

# Introduction

- Potts (2005) develops a multidimensional logic  $\mathcal{L}_{CI}$  for dealing with *conventional implicatures* (CIs).

- Potts (2005) develops a multidimensional logic  $\mathcal{L}_{CI}$  for dealing with *conventional implicatures* (CIs).
- He divides CIs into *supplements* and *expressives*.

- Potts (2005) develops a multidimensional logic  $\mathcal{L}_{CI}$  for dealing with *conventional implicatures* (CIs).
- He divides CIs into *supplements* and *expressives*.
- In his later work (Potts 2007*b,c*), expressives receive a different interpretation, but the type system and the combinatorics remain the same.

- Potts (2005) develops a multidimensional logic  $\mathcal{L}_{CI}$  for dealing with *conventional implicatures* (CIs).
- He divides CIs into *supplements* and *expressives*.
- In his later work (Potts 2007*b,c*), expressives receive a different interpretation, but the type system and the combinatorics remain the same.
- Although  $\mathcal{L}_{CI}$  is a great tool for studying and analysing non-at-issue kinds of meaning, I show that it has still some problems.

- Potts (2005) develops a multidimensional logic  $\mathcal{L}_{CI}$  for dealing with *conventional implicatures* (CIs).
- He divides CIs into *supplements* and *expressives*.
- In his later work (Potts 2007*b,c*), expressives receive a different interpretation, but the type system and the combinatorics remain the same.
- Although  $\mathcal{L}_{CI}$  is a great tool for studying and analysing non-at-issue kinds of meaning, I show that it has still some problems.
- These problems are raised by *expressive modifiers* and *mixed expressives*.

- Potts (2005) develops a multidimensional logic  $\mathcal{L}_{CI}$  for dealing with *conventional implicatures* (CIs).
- He divides CIs into *supplements* and *expressives*.
- In his later work (Potts 2007*b,c*), expressives receive a different interpretation, but the type system and the combinatorics remain the same.
- Although  $\mathcal{L}_{CI}$  is a great tool for studying and analysing non-at-issue kinds of meaning, I show that it has still some problems.
- These problems are raised by *expressive modifiers* and *mixed expressives*.
- To overcome these problems, the type of  $\mathcal{L}_{CI}$  system must be extended.

# Two claims

Potts (2005, 2007c) makes the following two important claims:

# Two claims

Potts (2005, 2007c) makes the following two important claims:

## Claim (1)

(1) Expressive types are only output types, i.e.: (Potts 2007c: 169)

## Two claims

Potts (2005, 2007c) makes the following two important claims:

### Claim (1)

- (1) Expressive types are only output types, i.e.: (Potts 2007c: 169)
  - a. At-issue content never applies to expressive content.  
(Potts 2005: § 3.5.1)

# Two claims

Potts (2005, 2007c) makes the following two important claims:

## Claim (1)

- (1) Expressive types are only output types, i.e.: (Potts 2007c: 169)
  - a. At-issue content never applies to expressive content.  
(Potts 2005: § 3.5.1)
  - b. Expressive content never applies to expressive content.  
(Potts 2005: § 3.5.2)

## Two claims

Potts (2005, 2007c) makes the following two important claims:

### Claim (1)

- (1) Expressive types are only output types, i.e.: (Potts 2007c: 169)
- At-issue content never applies to expressive content.  
(Potts 2005: § 3.5.1)
  - Expressive content never applies to expressive content.  
(Potts 2005: § 3.5.2)

### Claim (2)

- (2) No lexical item contributes both an at-issue and a CI-meaning.  
(Potts 2005: 7)

## Two claims

Potts (2005, 2007c) makes the following two important claims:

### Claim (1)

- (1) Expressive types are only output types, i.e.: (Potts 2007c: 169)
- At-issue content never applies to expressive content.  
(Potts 2005: § 3.5.1)
  - Expressive content never applies to expressive content.  
(Potts 2005: § 3.5.2)

### Claim (2)

- (2) No lexical item contributes both an at-issue and a CI-meaning.  
(Potts 2005: 7)

⇒ These restrictions are directly built into  $\mathcal{L}_{CI}$ .

- The claim (1) that expressives are only output types is challenged by expressive modifiers.

- The claim (1) that expressives are only output types is challenged by expressive modifiers.
- The claim (2) that no expression contributes to both dimensions of meaning is challenged by mixed expressives.

- The claim (1) that expressives are only output types is challenged by expressive modifiers.
- The claim (2) that no expression contributes to both dimensions of meaning is challenged by mixed expressives.
- If these challenges are valid, the system of  $\mathcal{L}_{CI}$  should be changed to accomodate such cases.

# Outline

- 1 Introduction
- 2 Potts' Logic of Conventional Implicature
- 3 Problem 1: Expressive modifiers
- 4 Problem 2: Mixed expressives
- 5 Extending the system
- 6 A remaining problem
- 7 Summary

# Potts' Logic of Conventional Implicature

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

## Types for LCI

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3) a.  $e$  and  $t$  are descriptive types.

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3) a.  $e$  and  $t$  are descriptive types.
- b.  $\varepsilon$  is an expressive type.

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3)
  - a.  $e$  and  $t$  are descriptive types.
  - b.  $\varepsilon$  is an expressive type.
  - c. If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3)
- a.  $e$  and  $t$  are descriptive types.
  - b.  $\varepsilon$  is an expressive type.
  - c. If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - d. If  $\sigma$  is a descriptive type, then  $\langle \sigma, \varepsilon \rangle$  is an expressive type.

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3)
  - a.  $e$  and  $t$  are descriptive types.
  - b.  $\varepsilon$  is an expressive type.
  - c. If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - d. If  $\sigma$  is a descriptive type, then  $\langle \sigma, \varepsilon \rangle$  is an expressive type.
  - e. The set of types is the union of the descriptive and expressive types.

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - If  $\sigma$  is a descriptive type, then  $\langle \sigma, \varepsilon \rangle$  is an expressive type.
  - The set of types is the union of the descriptive and expressive types.

### Gaps in the type system

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - If  $\sigma$  is a descriptive type, then  $\langle \sigma, \varepsilon \rangle$  is an expressive type.
  - The set of types is the union of the descriptive and expressive types.

### Gaps in the type system

- (4)
- If  $\sigma$  is a descriptive type, then  $\langle \varepsilon, \sigma \rangle \dots$

The core of  $\mathcal{L}_{CI}$  is its type system where the restrictions for expressive expressions are formulated.

### Types for LCI

- (3)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - If  $\sigma$  is a descriptive type, then  $\langle \sigma, \varepsilon \rangle$  is an expressive type.
  - The set of types is the union of the descriptive and expressive types.

### Gaps in the type system

- (4)
- If  $\sigma$  is a descriptive type, then  $\langle \varepsilon, \sigma \rangle \dots$
  - If  $\sigma$  and  $\tau$  are **expressive** types, then  $\langle \sigma, \tau \rangle \dots$

Special tree-admissibility conditions regulate how expressive and descriptive expression combine with each other.

Special tree-admissibility conditions regulate how expressive and descriptive expression combine with each other.

### CI-application

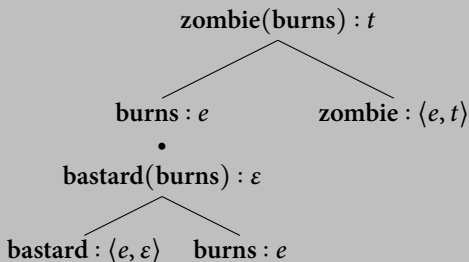


Special tree-admissibility conditions regulate how expressive and descriptive expression combine with each other.

### CI-application



(6) That bastard burns is a zombie.



# Problem 1: Expressive modifiers

## Gaps in the type system

- (7)
- If  $\sigma$  is a descriptive type, then  $\langle \varepsilon, \sigma \rangle \dots$
  - If  $\sigma$  and  $\tau$  are **expressive** types, then  $\langle \sigma, \tau \rangle \dots$

## Gaps in the type system

- (7)
- If  $\sigma$  is a descriptive type, then  $\langle \varepsilon, \sigma \rangle \dots$
  - If  $\sigma$  and  $\tau$  are **expressive** types, then  $\langle \sigma, \tau \rangle \dots$

## Claim (1)

- (8) Expressive types are only output types, i.e.: (Potts 2007c: 169)
- At-issue content never applies to expressive content.  
(Potts 2005: § 3.5.1)
  - Expressive content never applies to expressive content.  
(Potts 2005: § 3.5.2)

## Gaps in the type system

- (7)
- If  $\sigma$  is a descriptive type, then  $\langle \varepsilon, \sigma \rangle \dots$
  - If  $\sigma$  and  $\tau$  are **expressive** types, then  $\langle \sigma, \tau \rangle \dots$

## Claim (1)

- (8) Expressive types are only output types, i.e.: (Potts 2007c: 169)
- At-issue content never applies to expressive content.  
(Potts 2005: § 3.5.1)
  - Expressive content never applies to expressive content.  
(Potts 2005: § 3.5.2)

⇒ No expressive modifiers!

The type system of  $\mathcal{L}_{CI}$  predicts that there are no expressive modifiers, i.e. expression mapping expressive content to expressive content.

## Expressive modifiers

## Expressive modifiers

- (9) a. That fucking bastard Burns got promoted!

## Expressive modifiers

- (9)
- a. That fucking bastard Burns got promoted!
  - b. Holy shit, my bike tire is flat again!

## Expressive modifiers

- (9)
- a. That fucking bastard Burns got promoted!
  - b. Holy shit, my bike tire is flat again!
  - c. I feel really fucking brilliant.

## Expressive modifiers

- (9)
- That fucking bastard Burns got promoted!
  - Holy shit, my bike tire is flat again!
  - I feel really fucking brilliant.

## Intuitive structure

(cf. e.g. Geurts 2007)

- (10) That (fucking(bastard))(Burns) got promoted!

## Expressive modifiers

- (9)
- That fucking bastard Burns got promoted!
  - Holy shit, my bike tire is flat again!
  - I feel really fucking brilliant.

## Intuitive structure

(cf. e.g. Geurts 2007)

- (10) That (fucking(bastard))(Burns) got promoted!

## Structure assigned by $\mathcal{L}_{CI}$

- (11) That fucking(Burns)•bastard(Burns) got promoted!





- Potts (2007a) presents a revised approach that ensures that *that fucking bastard Burns* is expressively stronger than *that bastard Burns* while keeping the structure in (12).

- Potts (2007a) presents a revised approach that ensures that *that fucking bastard Burns* is expressively stronger than *that bastard Burns* while keeping the structure in (12).
- But this cannot work for examples like (14a) in which the first expression is clearly modifying the expressive and *not* the argument of the expressive.

- Potts (2007a) presents a revised approach that ensures that *that fucking bastard Burns* is expressively stronger than *that bastard Burns* while keeping the structure in (12).
- But this cannot work for examples like (14a) in which the first expression is clearly modifying the expressive and *not* the argument of the expressive.

(14) a. Holy shit, my bike tire is flat again!

- Potts (2007a) presents a revised approach that ensures that *that fucking bastard Burns* is expressively stronger than *that bastard Burns* while keeping the structure in (12).
- But this cannot work for examples like (14a) in which the first expression is clearly modifying the expressive and *not* the argument of the expressive.

- (14)
- a. Holy shit, my bike tire is flat again!
  - b. Shit, my bike tire is flat again!

- Potts (2007a) presents a revised approach that ensures that *that fucking bastard Burns* is expressively stronger than *that bastard Burns* while keeping the structure in (12).
- But this cannot work for examples like (14a) in which the first expression is clearly modifying the expressive and *not* the argument of the expressive.

- (14)
- a. Holy shit, my bike tire is flat again!
  - b. Shit, my bike tire is flat again!
  - c. \*Holy, my bike tire is flat again!

- The same holds for *intensifiers* (Schwager & McCready 2009) modifying an expressive.

- The same holds for *intensifiers* (Schwager & McCready 2009) modifying an expressive.

- (15) a. Dieser voll beschissene Idiot Peter ist zu spät.  
»This totally shitty idiot Peter is too late«.

- The same holds for *intensifiers* (Schwager & McCready 2009) modifying an expressive.

- (15)
- a. Dieser voll beschissene Idiot Peter ist zu spät.  
»This totally shitty idiot Peter is too late«.
  - b. \*Dieser voll Peter ist zu spät.

- The same holds for *intensifiers* (Schwager & McCready 2009) modifying an expressive.

- (15) a. Dieser voll beschissene Idiot Peter ist zu spät.  
      »This totally shitty idiot Peter is too late«.
- b. \*Dieser voll Peter ist zu spät.

- (16) a. That absolutely fucking bastard Burns got promoted.

- The same holds for *intensifiers* (Schwager & McCready 2009) modifying an expressive.

- (15) a. Dieser voll beschissene Idiot Peter ist zu spät.  
      »This totally shitty idiot Peter is too late«.
- b. \*Dieser voll Peter ist zu spät.

- (16) a. That absolutely fucking bastard Burns got promoted.
- b. \*That absolutely bastard Burns got promoted.

- That it is the expressive that is modified is also suggested by case marking in languages like German.

- That it is the expressive that is modified is also suggested by case marking in languages like German.

(17) a. Verdammt-*e* Scheiße, mein Fahrrad hat wieder einen Platten!  
*damn.FEM shit.FEM my bike has again a flat*

- That it is the expressive that is modified is also suggested by case marking in languages like German.

- (17)
- a. Verdammt-**e** Scheiße, mein Fahrrad hat wieder einen Platten!  
*damn.FEM shit.FEM my bike has again a flat*
- b. Verdammt-**er** Mist, mein Fahrrad hat wieder einen Platten!  
*damn.MASC shit.MASC my bike has again a flat*  
»Damn shit, my bike tire is flat again!«

- That it is the expressive that is modified is also suggested by case marking in languages like German.

- (17)
- a. Verdammt-**e** Scheiße, mein Fahrrad hat wieder einen Platten!  
*damn.FEM shit.FEM my bike has again a flat*
- b. Verdammt-**er** Mist, mein Fahrrad hat wieder einen Platten!  
*damn.MASC shit.MASC my bike has again a flat*  
 »Damn shit, my bike tire is flat again!«

- (18)
- a. Das verdammt-**e** Arschloch Peter hat mich abgezockt.  
*the damn.NEUT asshole.NEUT Peter.MASC has me off-ripped*  
 »That damn asshole Peter ripped me off!«

- That it is the expressive that is modified is also suggested by case marking in languages like German.

- (17) a. Verdammt-**e** Scheiße, mein Fahrrad hat wieder einen Platten!  
*damn.FEM shit.FEM my bike has again a flat*
- b. Verdammt-**er** Mist, mein Fahrrad hat wieder einen Platten!  
*damn.MASC shit.MASC my bike has again a flat*  
 »Damn shit, my bike tire is flat again!«

- (18) a. Das verdammt-**e** Arschloch Peter hat mich abgezockt.  
*the damn.NEUT asshole.NEUT Peter.MASC has me off-ripped*  
 »That damn asshole Peter ripped me off!«
- b. \*Das verdammt-**er** Arschloch Peter hat mich abgezockt.  
*the damn.MASC asshole.NEUT Peter.MASC has me off-ripped*

## Problem 2: Mixed expressives

## Claim (2)

- (19) No lexical item contributes both an at-issue and a CI-meaning.  
(Potts 2005: 7)

## Claim (2)

- (19) No lexical item contributes both an at-issue and a CI-meaning.  
(Potts 2005: 7)

⇒ No mixed expressives!

There are no expressions that contribute to both dimension of meaning.

But: Some of most clearest cases of expressives contribute to both dimensions!

But: Some of most clearest cases of expressives contribute to both dimensions!

### Rascist swear words

- (20) a. Lessing was a Boche. (Williamson 2009)  
b. Hitler was a Kraut. (Saka 2007)

But: Some of most clearest cases of expressives contribute to both dimensions!

### Racist swear words

- (20) a. Lessing was a Boche. (Williamson 2009)  
b. Hitler was a Kraut. (Saka 2007)

### Expressive content

The speaker has a negative attitude towards Germans.

But: Some of most clearest cases of expressives contribute to both dimensions!

### Racist swear words

- (20) a. Lessing was a Boche. (Williamson 2009)  
b. Hitler was a Kraut. (Saka 2007)

### Expressive content

The speaker has a negative attitude towards Germans.

### Descriptive content

Lessing/Hitler was a German.

- More generally, every expression with an expressive connotation is a mixed expressive.

- More generally, every expression with an expressive connotation is a mixed expressive.

(21) a. *Köter*  $\rightsquigarrow$  dog + negative attitude

- More generally, every expression with an expressive connotation is a mixed expressive.

- (21)
- Köter*  $\rightsquigarrow$  dog + negative attitude
  - Bulle*  $\rightsquigarrow$  policeman + negative attitude

- More generally, every expression with an expressive connotation is a mixed expressive.

- (21)
- Köter*  $\rightsquigarrow$  dog + negative attitude
  - Bulle*  $\rightsquigarrow$  policeman + negative attitude
  - Sie*  $\rightsquigarrow$  the hearer + expressing a formal relationship

- More generally, every expression with an expressive connotation is a mixed expressive.

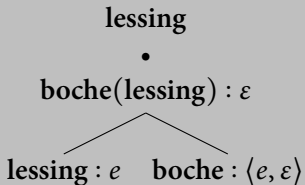
- (21)
- Köter*  $\rightsquigarrow$  dog + negative attitude
  - Bulle*  $\rightsquigarrow$  policeman + negative attitude
  - Sie*  $\rightsquigarrow$  the hearer + expressing a formal relationship

- For a lot of examples of mixed expressives in Japanese, cf. McCready (2009).

- Furthermore, if *Boche* is treated as a simple expressive,  $\mathcal{L}_{CI}$  makes the wrong predictions about the descriptive meaning.

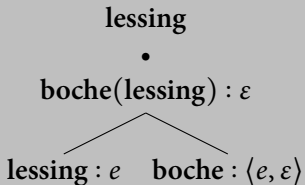
- Furthermore, if *Boche* is treated as a simple expressive,  $\mathcal{L}_{CI}$  makes the wrong predictions about the descriptive meaning.

(22)



- Furthermore, if *Boche* is treated as a simple expressive,  $\mathcal{L}_{CI}$  makes the wrong predictions about the descriptive meaning.

(22)



- A further argument is that the contribution of the past tense in *Lessing was a Boche* has to apply to the descriptive component since the expressive component cannot be shifted to the past.

# Extending the system

- In order to overcome this problems, I suggest to extent the type system of  $\mathcal{L}_{CI}$ .

- In order to overcome this problems, I suggest to extent the type system of  $\mathcal{L}_{CI}$ .
- To allow for expressive modifiers, I fill one of the gaps in the type definition.

- In order to overcome this problems, I suggest to extent the type system of  $\mathcal{L}_{CI}$ .
- To allow for expressive modifiers, I fill one of the gaps in the type definition.

### Types for $\mathcal{L}_{CI+EM}$

- (23)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.

- In order to overcome these problems, I suggest to extend the type system of  $\mathcal{L}_{CI}$ .
- To allow for expressive modifiers, I fill one of the gaps in the type definition.

### Types for $\mathcal{L}_{CI+EM}$

- (23)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - If  $\sigma$  is a descriptive type and  $\tau$  is a (hybrid or pure) expressive type, then  $\langle \sigma, \tau \rangle$  is a hybrid expressive type.

- In order to overcome these problems, I suggest to extend the type system of  $\mathcal{L}_{CI}$ .
- To allow for expressive modifiers, I fill one of the gaps in the type definition.

### Types for $\mathcal{L}_{CI+EM}$

- (23)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - If  $\sigma$  is a descriptive type and  $\tau$  is a (hybrid or pure) expressive type, then  $\langle \sigma, \tau \rangle$  is a hybrid expressive type.
  - If  $\sigma$  and  $\tau$  are (hybrid or pure) expressive types, then  $\langle \sigma, \tau \rangle$  is a pure expressive type.

## Comparison between $\mathcal{L}_{CI}$ and $\mathcal{L}_{CI+EM}$ :

	<i>T</i>		<i>E'</i>
<i>T</i>	<i>T</i>		<i>E'</i>
<i>s</i>	<i>T</i>		<i>E'</i>

Table: The type system of  $\mathcal{L}_{CI}$

## Comparison between $\mathcal{L}_{CI}$ and $\mathcal{L}_{CI+EM}$ :

	<i>T</i>		<i>E'</i>
<i>T</i>	<i>T</i>		<i>E'</i>
<i>s</i>	<i>T</i>		<i>E'</i>

Table: The type system of  $\mathcal{L}_{CI}$

	<i>T</i>	<i>E</i>	<i>E'</i>
<i>T</i>	<i>T</i>	<i>E'</i>	<i>E'</i>
<i>E</i>		<i>E</i>	<i>E</i>
<i>E'</i>		<i>E</i>	<i>E</i>
<i>s</i>	<i>T</i>	<i>E</i>	<i>E'</i>

Table: The type system of  $\mathcal{L}_{CI+EM}$

## Comparison between $\mathcal{L}_{CI}$ and $\mathcal{L}_{CI+EM}$ :

	$T$		$E'$
$T$	$T$		$E'$
$s$	$T$		$E'$

Table: The type system of  $\mathcal{L}_{CI}$

	$T$	$E$	$E'$
$T$	$T$	$E'$	$E'$
$E$		$E$	$E$
$E'$		$E$	$E$
$s$	$T$	$E$	$E'$

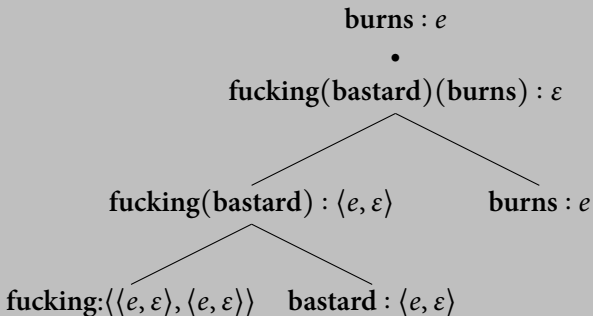
Table: The type system of  $\mathcal{L}_{CI+EM}$

## A new tree-admissibility condition

(24)

$$\begin{array}{c}
 \alpha(\beta) : \tau^\varepsilon \\
 \swarrow \quad \searrow \\
 \alpha(\sigma^\varepsilon, \tau^\varepsilon) \quad \beta : \tau^\varepsilon
 \end{array}$$

- Equipped with these rules and types, we can provide an intuitive semantics for expressive modifiers.



- To account for mixed expressives, I adopt a type definition from McCready (2009):

- To account for mixed expressives, I adopt a type definition from McCready (2009):

### Types for $\mathcal{L}_{CI+EM+ME}$

- (25)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - If  $\sigma$  is a descriptive type and  $\tau$  is a (hybrid or pure) expressive type, then  $\langle \sigma, \tau \rangle$  is a hybrid expressive type.
  - If  $\sigma$  and  $\tau$  are (hybrid or pure) expressive types, then  $\langle \sigma, \tau \rangle$  is a pure expressive type.

- To account for mixed expressives, I adopt a type definition from McCready (2009):

### Types for $\mathcal{L}_{CI+EM+ME}$

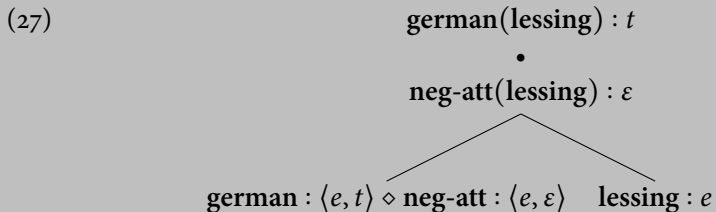
- (25)
- $e$  and  $t$  are descriptive types.
  - $\varepsilon$  is an expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive types, then  $\langle \sigma, \tau \rangle$  is a descriptive type.
  - If  $\sigma$  is a descriptive type and  $\tau$  is a (hybrid or pure) expressive type, then  $\langle \sigma, \tau \rangle$  is a hybrid expressive type.
  - If  $\sigma$  and  $\tau$  are (hybrid or pure) expressive types, then  $\langle \sigma, \tau \rangle$  is a pure expressive type.
  - If  $\sigma$  and  $\tau$  are descriptive type and  $v$  is a pure expressive type, then  $\langle \sigma, \tau \rangle \diamond \langle \sigma, v \rangle$  is a mixed type.

- A corresponding tree-admissibility condition distributes one argument to both parts of a mixed expressive, isolates the expressive content, and passes the descriptive content up the tree.

(26)

$$\begin{array}{c} \alpha(\gamma) : \tau \\ \bullet \\ \beta(\gamma) : v \\ \swarrow \quad \searrow \\ \alpha : \langle \sigma, \tau \rangle \diamond \beta : \langle \sigma, v \rangle \quad \gamma : \sigma \end{array}$$

- Equipped with these rules and types, we can provide an adequate semantics for mixed expressives.



# A remaining problem

## 2-place expressives

- Even  $\mathcal{L}_{CI+EM+ME}$  doesn't allow for 2-place expressives.

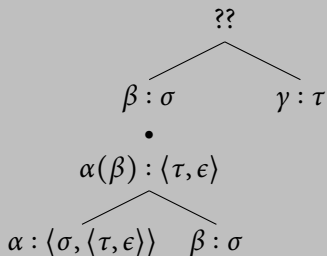
## 2-place expressives

- Even  $\mathcal{L}_{CI+EM+ME}$  doesn't allow for 2-place expressives.
- Although the type for such expressions is defined in  $\mathcal{L}_{CI}$ , they cannot be computed.

## 2-place expressives

- Even  $\mathcal{L}_{CI+EM+ME}$  doesn't allow for 2-place expressives.
- Although the type for such expressions is defined in  $\mathcal{L}_{CI}$ , they cannot be computed.

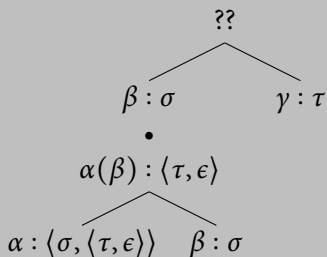
(28)



## 2-place expressives

- Even  $\mathcal{L}_{CI+EM+ME}$  doesn't allow for 2-place expressives.
- Although the type for such expressions is defined in  $\mathcal{L}_{CI}$ , they cannot be computed.

(28)



- However, I am not sure at the moment whether 2-place expressives are actually needed.

# Summary

- In his influential work on expressives, Potts (2005, 2007*b,c*) makes two claims:

- In his influential work on expressives, Potts (2005, 2007*b,c*) makes two claims:
  - Expressives are never arguments.

- In his influential work on expressives, Potts (2005, 2007*b,c*) makes two claims:
  - Expressives are never arguments.
  - No expression contributes to both dimensions of meaning.

- In his influential work on expressives, Potts (2005, 2007*b,c*) makes two claims:
  - Expressives are never arguments.
  - No expression contributes to both dimensions of meaning.
- I have challenged both claims.

- In his influential work on expressives, Potts (2005, 2007*b,c*) makes two claims:
  - Expressives are never arguments.
  - No expression contributes to both dimensions of meaning.
- I have challenged both claims.
- To account for expressive modifiers and mixed expressives, I added new types and tree-admissibility to  $\mathcal{L}_{CI}$ .

- In his influential work on expressives, Potts (2005, 2007*b,c*) makes two claims:
  - Expressives are never arguments.
  - No expression contributes to both dimensions of meaning.
- I have challenged both claims.
- To account for expressive modifiers and mixed expressives, I added new types and tree-admissibility to  $\mathcal{L}_{CI}$ .
- A remaining problem(?): Even  $\mathcal{L}_{CI+EM+ME}$  still predicts that there are no 2-place expressives.

Thank you for your attention

## References

- Geurts, Bart (2007): »Really fucking brilliant«. In: *Theoretical Linguistics* 33.2, 209–214. 10.1515/TL.2007.013.
- McCready, Eric (2009): »Varieties of conventional implicature. Evidence from Japanese«. Ms. Tokyo: Aoyama Gakuin University. URL: <http://semanticsarchive.net/Archive/DdmMWQyM/>.
- Potts, Christopher (2005): *The Logic of Conventional Implicature*. (Oxford Studies in Theoretical Linguistics 7). Oxford: Oxford University Press.
- Potts, Christopher (2007a): *Expressives (Issue of Theoretical Linguistics 33)*. Berlin and New York: de Gruyter.
- Potts, Christopher (2007b): »The centrality of expressive indices«. In: *Theoretical Linguistics* 33.2, 255–268. 10.1515/TL.2007.019. URL: <http://people.umass.edu/potts/papers/potts-tl-reply.pdf>.
- Potts, Christopher (2007c): »The expressive dimension«. In: *Theoretical Linguistics* 33.2, 165–197. 10.1515/TL.2007.011. URL: <http://people.umass.edu/potts/papers/potts-expressives06.pdf>.
- Saka, Paul (2007): *How to Think about Meaning*. (Philosophical Studies Series 109). Dordrecht: Springer.
- Schwager, Magdalena & Eric McCready (2009): »Intensifiers«. In: *DGfS 31. Workshop in Expressives and other Kinds of Non-truth-conditional Meaning*. University of Osnabrück.
- Williamson, Timothy (2009): »Reference, inference and the semantics of pejoratives«. In: Almog, Joseph & Paolo Leonardi, eds. (2009): *The Philosophy of David Kaplan*. Oxford: Oxford University Press, 137–158.