

The Pervert's Guide to Computer Programming Languages



Psychoanalysis and Software



What are the issues with selecting a programming language?

$(\text{Class} \parallel \rightarrow \parallel \mid > \parallel \Rightarrow \parallel \text{defun})? \text{Joy:Pain}$

- **Which** programming language should we choose?
 - Just saying: '**use** the right tool for the job' begs the question.
- **Why** are there over 1000 programming languages?
- **How** do we critique a programming language?

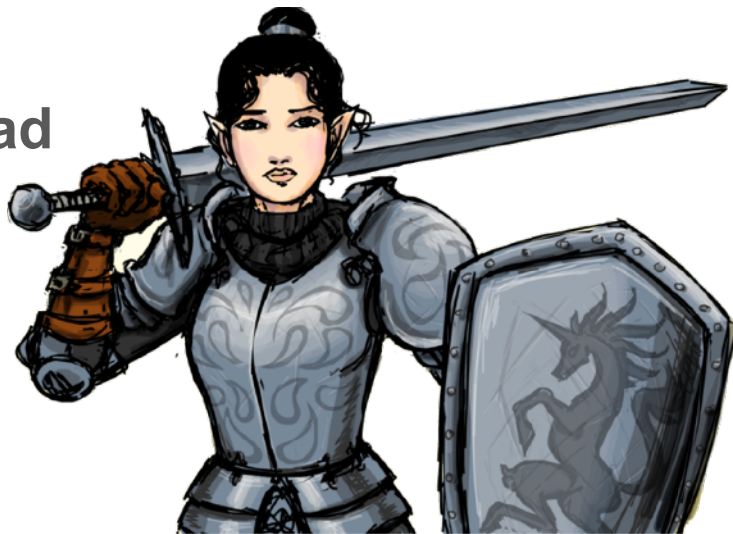
How do we decide?

- Why do language designers create new programming languages?
 - **Rational reasons**
 - Maximize expression while modeling:
 - a specific problem
 - a broad range of problems
- Psychoanalysts: "**Many decisions are not rational**"
- Programming language **choice can be rational, non-rational, or a mix**
- Use Jacques Lacan and Slavoj Zizek's critical theory
 - **Critique non-rational decisions**
 - Discover ulterior motives (ours and others)
 - Explain the diversity of language options



Learning Objectives

- **Learn the fundamentals** of Lacanian and Zizekian **critical theory**.
 - After this talk, you should be able to **read Zizek without pulling your hair out**
- **Apply the fundamentals** of critical theory to your **favorite computer programming language**.
- **Start a holy war ...** (or stop one)



Part I

Introduction to Psychoanalysis

Jacques Lacan

- French **psychoanalyst** and philosopher
- **Extremely cryptic**
- Preoccupied with **desire** and **enjoyment**
- Popularized the mirror image, the **Big Other**, and the triad of the Imaginary, the Symbolic, and the Real
- Believes **all humans** fall into the three basic mental structures of **psychosis, perversion, and neurosis**



Slavoj Zizek



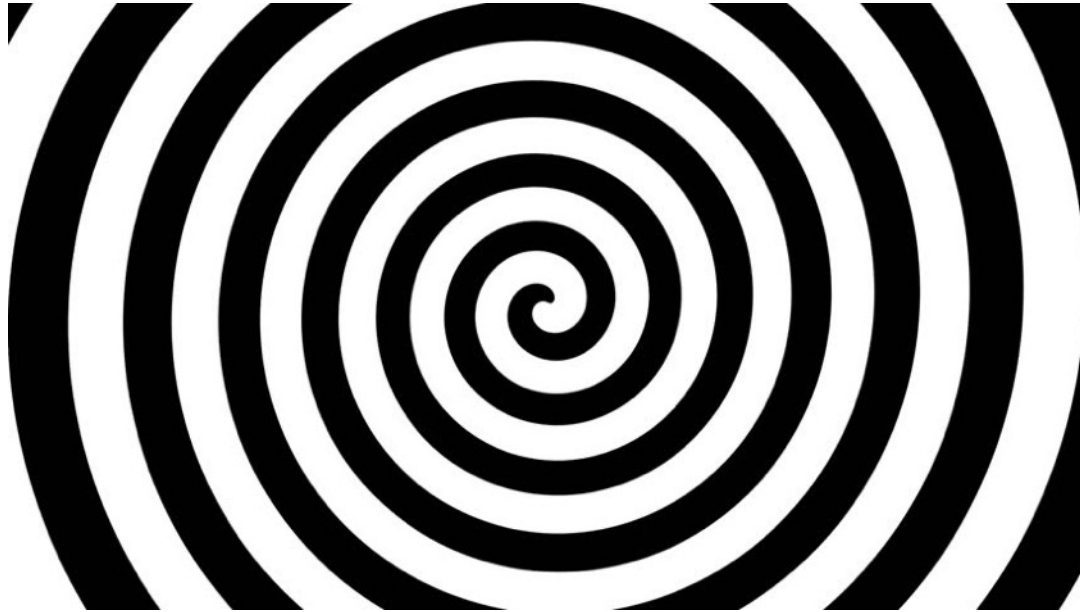
- Student of Jacques Lacan
- **Specializes in ideology**
- Most influential work: 'The Sublime Object of Ideology'
- Makes politically incorrect jokes/**critic of political correctness**
- Believes our **ideological symptoms and fantasies** form in order to help us **deal with antagonisms**

Why the 'Pervert's Guide'?

- Based on the **Pervert's Guide to Ideology**
- **Pervert** is a person who enjoys being a **vessel of the rules**.
- Žižek calls the analyst's **method of discourse** the **pervert's discourse**
- The analyst sits in the position of the object of desire for the subject.
- The analysand projects his or her ideals onto the analyst (transference).
- **When we analyze programming languages we are operating in the analyst's (i.e. pervert's) discourse.**

Why Psychoanalysis?

Isn't psychoanalysis foolishness?



Psychoanalysis Outdated

- **Outdated model of the mind** (replaced by the cognitive neurobiologist model),
- **Outdated therapy** (replaced by **drugs** and newer behavioral therapy)
- **Outdated view of sexual repression** (replaced by modern sexual permissiveness).
- Computer science demonstrates a **computational account of the brain** which seems to leave **no room for psychoanalysis**.
- **Psychoanalysis is largely questioned within the United States.**



Sigmund Freud

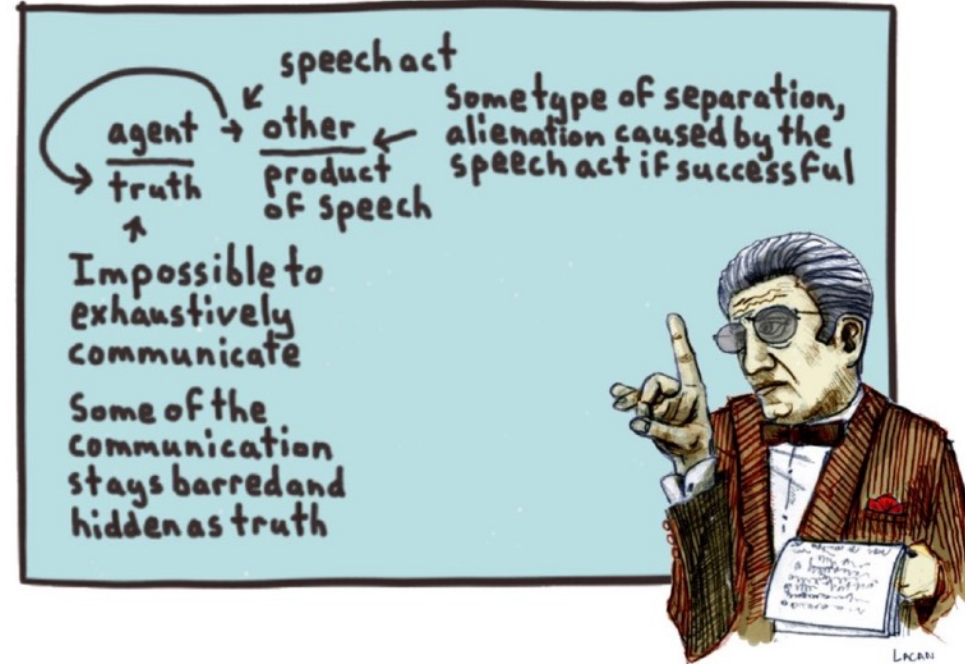
Psychoanalysis Updated

- **Lacan updates Freud's view** of psychoanalysis
- **Speech act** theory
- Hegelian philosophy
- Fundamental structures (**psychosis, neurosis, perversion**)
- The **Lacanian triad**: imaginary, symbolic, real
- **Psychoanalysis is not** for increasing **well being** but rather **for the explaining of reality**.







Speech Act Theory

- The basis of the **Lacanian psychoanalytic structures** is **speech act theory**
- A **structure is a privileged and necessary concept** at the center of a model of human understanding
- Zizek believes Lacan holds the **performative and reflexive elements** of the speech act in a **necessary and privileged position**
- Lacan believes **early speech acts** have **an overwhelming effects** on us
- **If you were to deny Lacanian theory**, you would probably **do it here**



Why Do We Need Psychoanalysis?

S_h	COOPERATE	DEFECT
COOPERATE		
DEFECT		

VS



- Just as **you should take other people's rational decisions into account** when making your decisions, you **should also take other people's irrational decisions into account** when making your decisions
- In this way, psychoanalysis is **complementary to strategy**.
- Strategy (game theory) **takes other people's rational decisions into account**.
- We can use psychoanalysis to **take other people's irrational decisions into account**.
- Irrational decisions are those decisions that **go against the conscious preferences** of the agent.

PART II

The Lacanian Model

What is Enjoyment (Jouissance)?

- **Jouissance** is an ambiguous French word for enjoyment of rights, property, or orgasm
- Lacan uses jouissance to describe a person's **relationship with the object of desire**
- Lacan's use is related more to Freud's '**death drive**' (as opposed to the more well known 'sex drive')
 - Can be thought of as the child's game of **peekaboo**
- **This enjoyment is the enjoyment that comes from staging our own failure to reach the 'object of desire'**

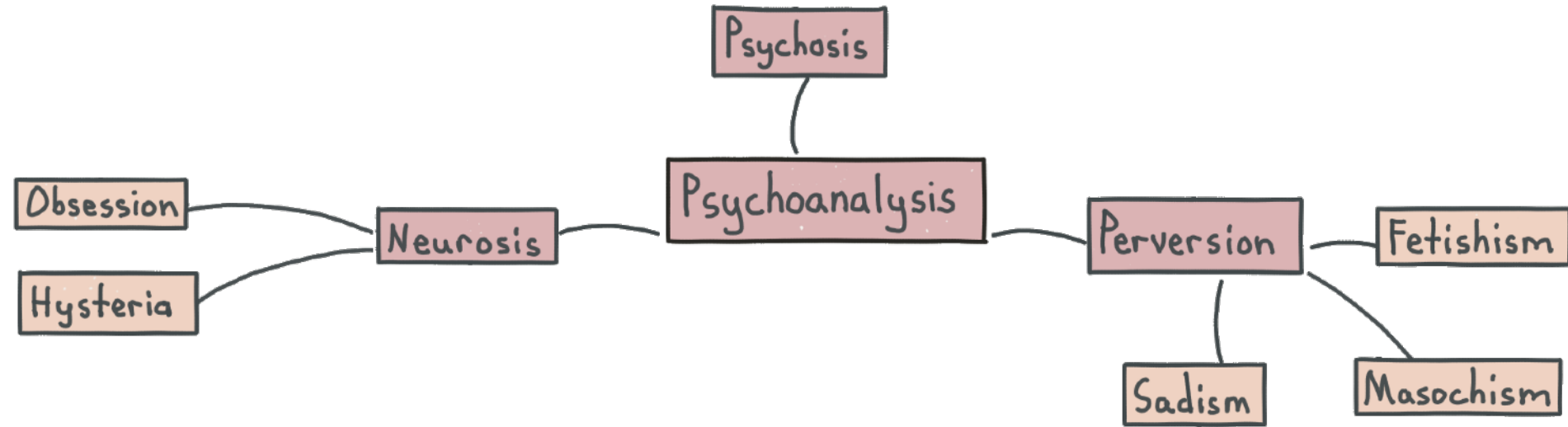


Enjoyment is Confusing!

Things to remember

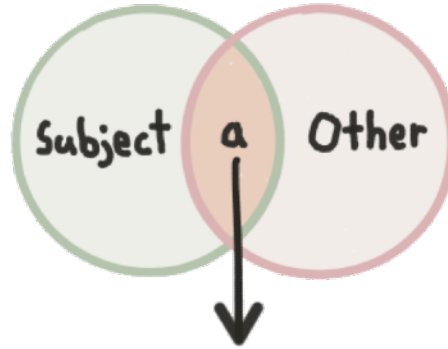
- **Enjoyment** does **not** mean pleasure or **happiness**!
- Assumes that there is an **object of desire**.
- The **object of desire** is **not** the actual **physical** object!
- **You can never reach the object of desire**, but you can reach the target of desire (e.g. the physical object), but this **creates dissatisfaction**!
- There are **rules that regulate** the **minimal distance** between you and the object of desire

Lacanian Structures



- **Not** part of the traditional **DSM classifications** that psychologists use to classify mental states
- **We** are concerned with their effects on **enjoyment**

The Subject and the Other



- **Lacanian structures** start in the **early stages** of a child's development
- **Child** originally has **no distinction** between **itself and the primary caretaker**
- There are **two stages** of prohibitions (**alienation** and then **separation**) that regulate the child and the object of desire (a)
- **Alienation and separation** are responsible **psychosis, perversion or neurosis**

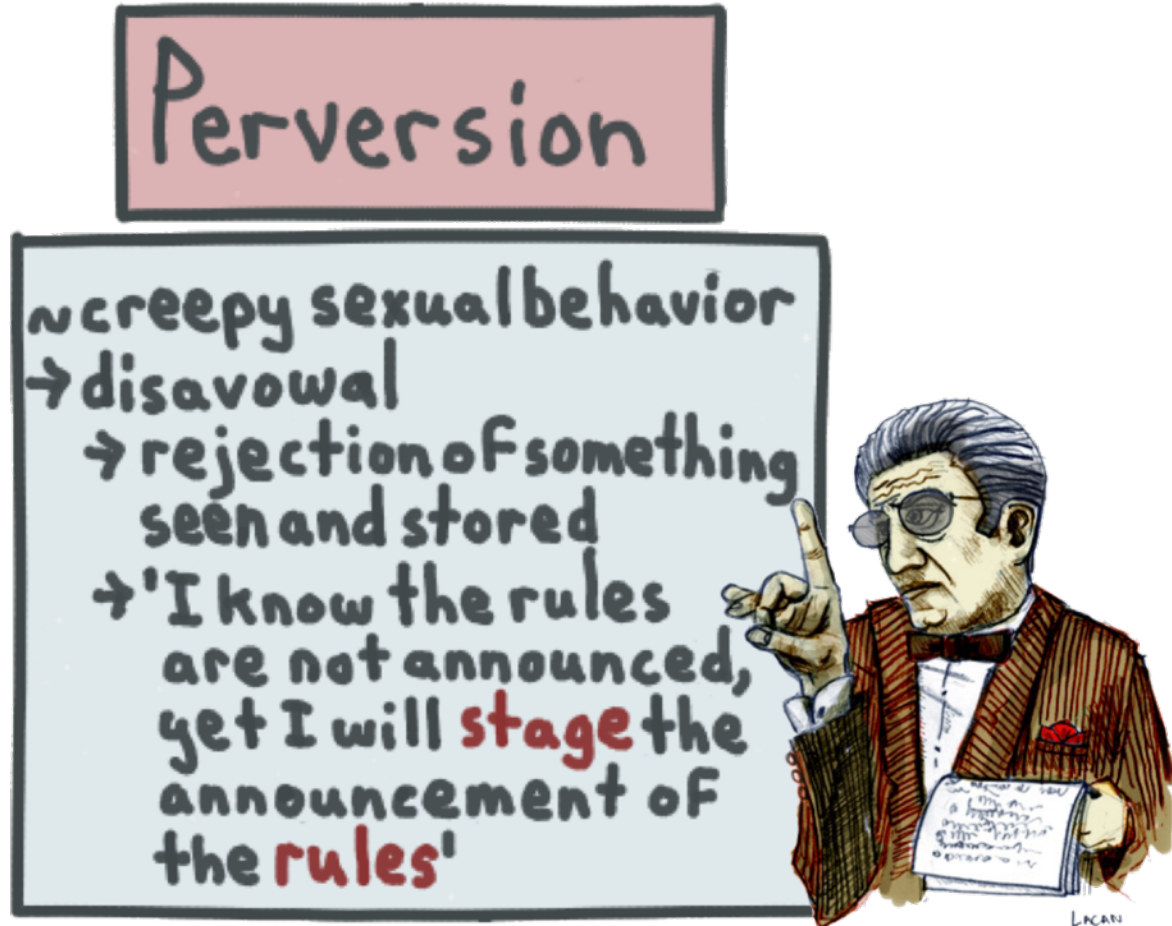
- Subject **never** gains a **normative relation** with **language**.
- Subject is never properly **separated from their primary caretaker**.
- **Delusions** (e.g. voices or messages) permeate the subject's experience.
- Engulfed in enjoyment
- Primary mechanism is **foreclosure**, meaning the **subject rejects things in reality**.
- Example: **James Joyce**

Psychosis

~murderer
 → Foreclosure
 → rejection of things in reality → eg delusions
 → language disturbances
 → problems with new **metaphors**
 → interrupted sentences
 ~laborious weighing of rules
 ~guilt



- Subject **wants to complete the rules**
- Subject only experienced a **partial separation (alienation)** from the primary caretaker
- Three sub-structures: **fetishism, sadism, and masochism**
- Primary mechanism **disavowal**: the **rejection of something seen and stored.**
- Example: **Borat**



- Fetish is an **object** that is linguistically related to the **failure to name** the primary caretaker's **desire**
- The **presence of the object adds relief** to the subject's unconscious by staging the naming of the desire of the caretaker.
- Example: **You and a \$20 bill**

Fetishism

~ Fascination with sexual object
→ enjoyment with being linguistically separated from one's enjoyment
→ activity that **stages** the accomplishment of the **naming** of the lack



- Sadists don't enjoy causing direct harm, but rather they **seek to cause anxiety** in the victim.
- Hopes to **force the victim to refine** what they desire.
- **Refinement** serves as **proof** for the sadist that the **rules** were **announced**
- Example: The antagonist who ties the love interest to the train tracks

Sadism

~enjoy giving victim
 pain
 → give victim anxiety
 by **threatening** them
 with a **loss** of the object
 → victim refines definition
 of the object into '**objecta**'
 during the event
 → serves as proof of
 • enunciation of the law



- The subject **causes anxiety** in the other by **exposing themselves to harm**
- **Other** finds the event to be **too much enjoyment**
- Other is provoked to **announce the rules**
- **Example: Marquis de Sade**

Masochism

~enjoys receiving
pain
→ lure
→ gives Other anxiety
→ **too much** enjoyment
For Other
→ Force Other to
announce the rules



- Category that the **majority of humans fall into** this structure
- Separated into **obsession, hysteria, and phobia**
- **Preoccupied** with what **others** think is **right**
- Primary mechanism is **repression**: **reality** is accepted, repressed, then **returns disguised** (aka symptom).
- Example: **Probably you!**

Neurosis

~ abnormal
→ most people are neurotic
→ preoccupied with what **others** think is **right**
→ repression
→ reality is accepted, repressed then returns **disguised**
→ symptom
→ slips, bungled action



- Seeks to **neutralize the other** and possess the object of desire
- Early speech acts cause the obsessive to **forestall the encounter with the object of desire**
- Primarily **motivated by guilt** (from **failing to adhere to the rules**)
- Example: **Hamlet**

Obsession

~excessive repetition
→ wants to **neutralize**
the Other and **possess**
the object of desire
→ motivated by guilt
→ Other seems over-
whelming



- Wishes to **be** the **object of desire** for the other
- Early speech acts cause the hysteric to **move too fast** towards the **object** of desire and they **overshoot it**.
- **Keeps** the other **unsatisfied** using questions
- Primary motivator is **repulsion**, especially at being possessed or captured by the other.
- Example: **King Richard II**

Hysteria

~ excessive emotion
 → wants to **be** the object
 of **desire**
 ~ object of satisfaction
 → motivated by revulsion
 → keeps the other
 unsatisfied



Part III

Psychoanalysis and Programming Languages

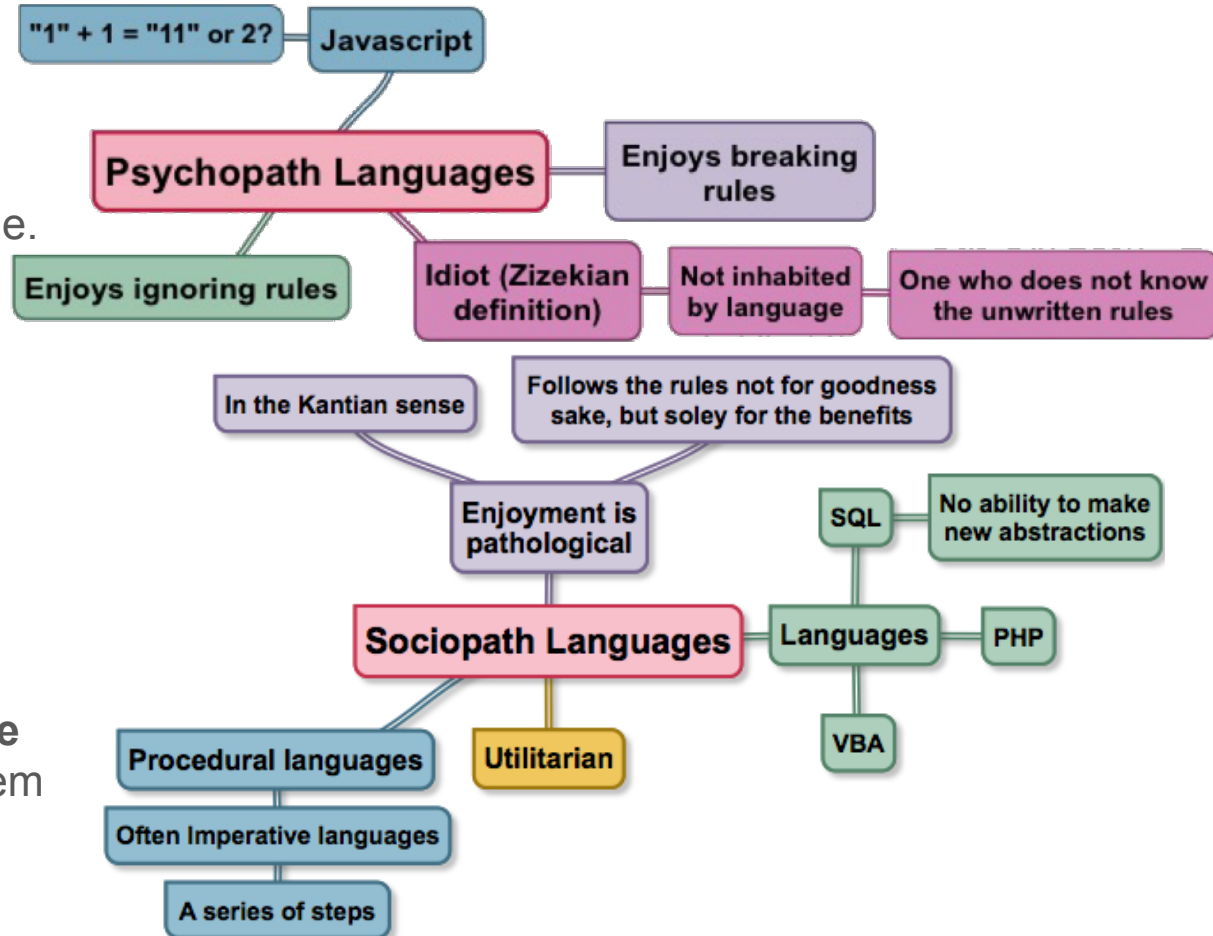
Psychoanalysis and Programming Languages



- Use **psychoanalytic enjoyment** and **Lacanian structures** to **critique** the choice of computer programming languages
- Programming languages use **rules that lend themselves** to specific **structures**
- **Any** programming **language** is **compatible** with **any structure**
 - E.g. if a **hysteric** uses an **obsessional language**, the hysteric will **use** the **obsessive language** as if it were a **hysterical language**.

Psychotic Languages

- A **psychotic** or sociopath language **does not laboriously weigh the rules** before creating an end product.
- **Poor methods of abstraction** (i.e. language disturbances)
- **Weak or loose typing** (or automatic implicit type casting)
- **High-functioning psychotics** (sociopaths) have **no internal implicit rules**.
 - Developer **does not attribute craftsmanship** into the system of rules that comprise the psychotic language.



Perversion Languages

- **Masochist**

- Enjoys when the other **announces** that a hard problem **must be solved with the masochist's discipline**.
- Enjoys proving to the other that they have **taken the hard road**
- **Masochist languages** are excruciatingly **difficult**, tedious, or minimalistic.
- Causes anxiety by **confronting other with work done** using **syntax, architecture, or the tool chain**.

- **Sadist**

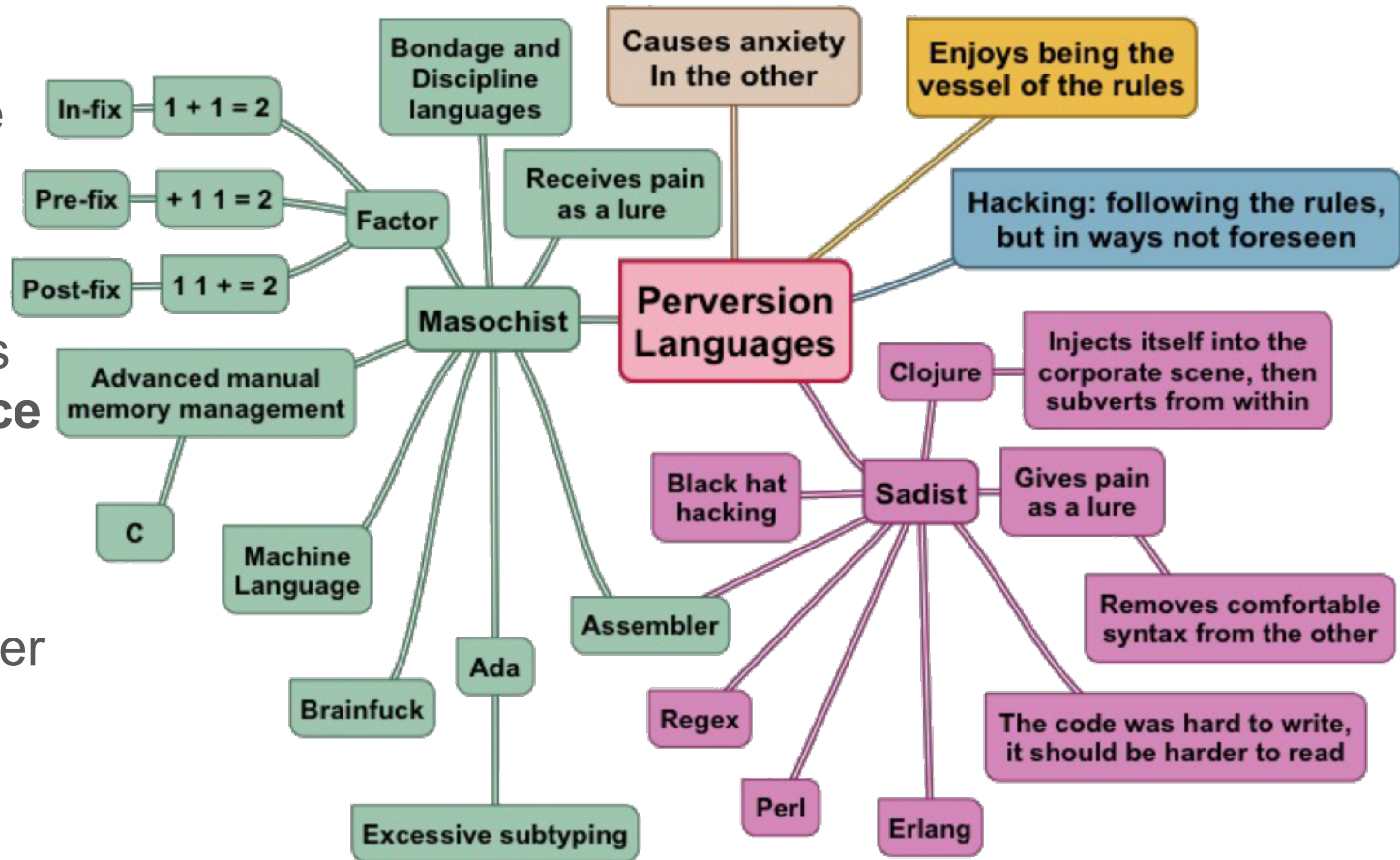
- Threatens the other in such a way that the **other will describe their own impotence**.
- Uses **delivered code** to cause anxiety by way of **threat** to the other (eg through difficulty of maintenance).

- **Fetishist**

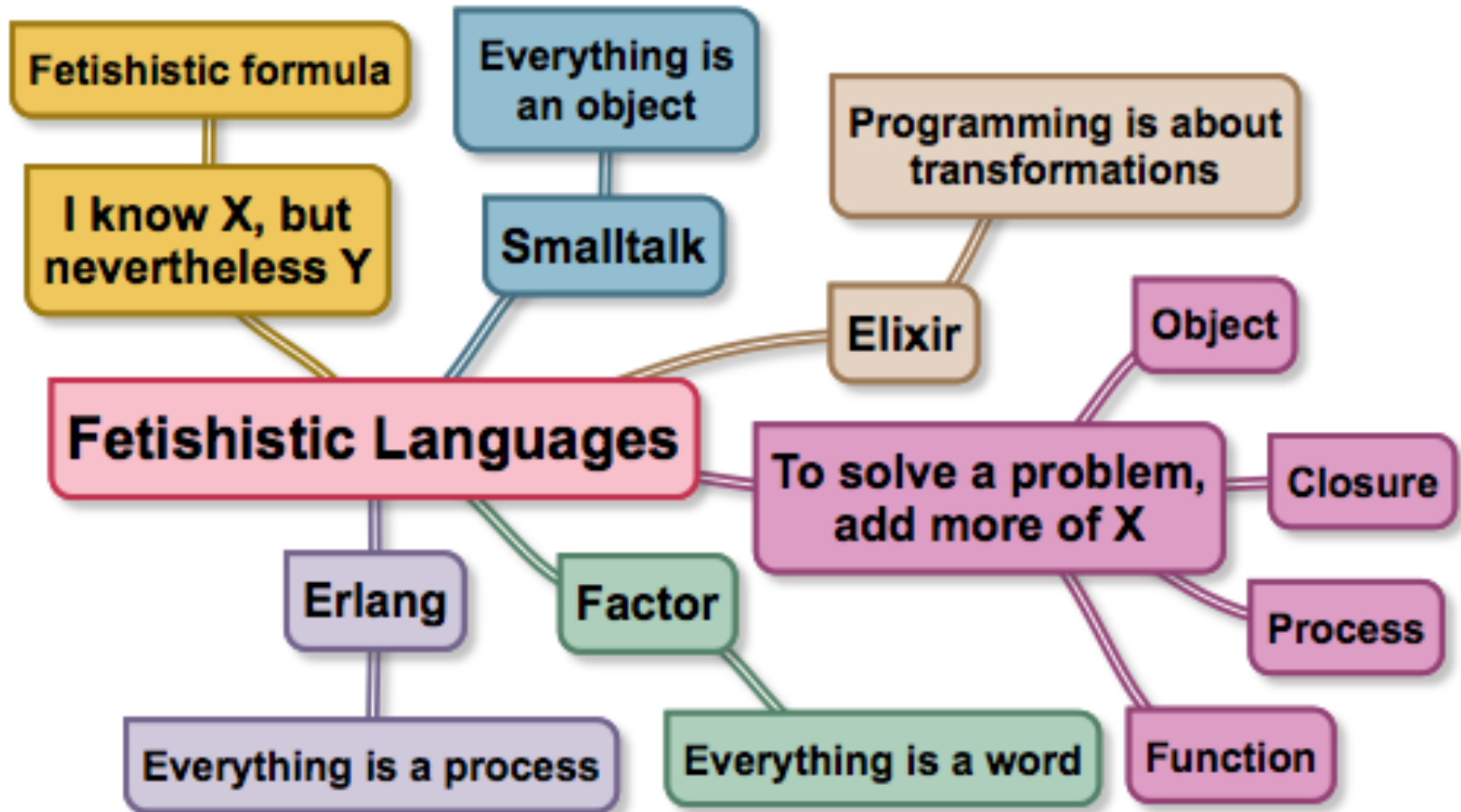
- Developer finds enjoyment **when** a certain **object is present**.
 - E.g. a specific 'first order abstraction' such as functions or classes.
- The **more** the fetish **object is present**, the **more enjoyment** it provides.
- The presence of the fetishistic **object stands in** for the **announcement** of the **rules**.

Perversion Languages - Cont'd

- Enjoys being the vessel of the rules.
- Masochist wants other to announce masochist's discipline
- Sadist wants other to announce the other's impotence

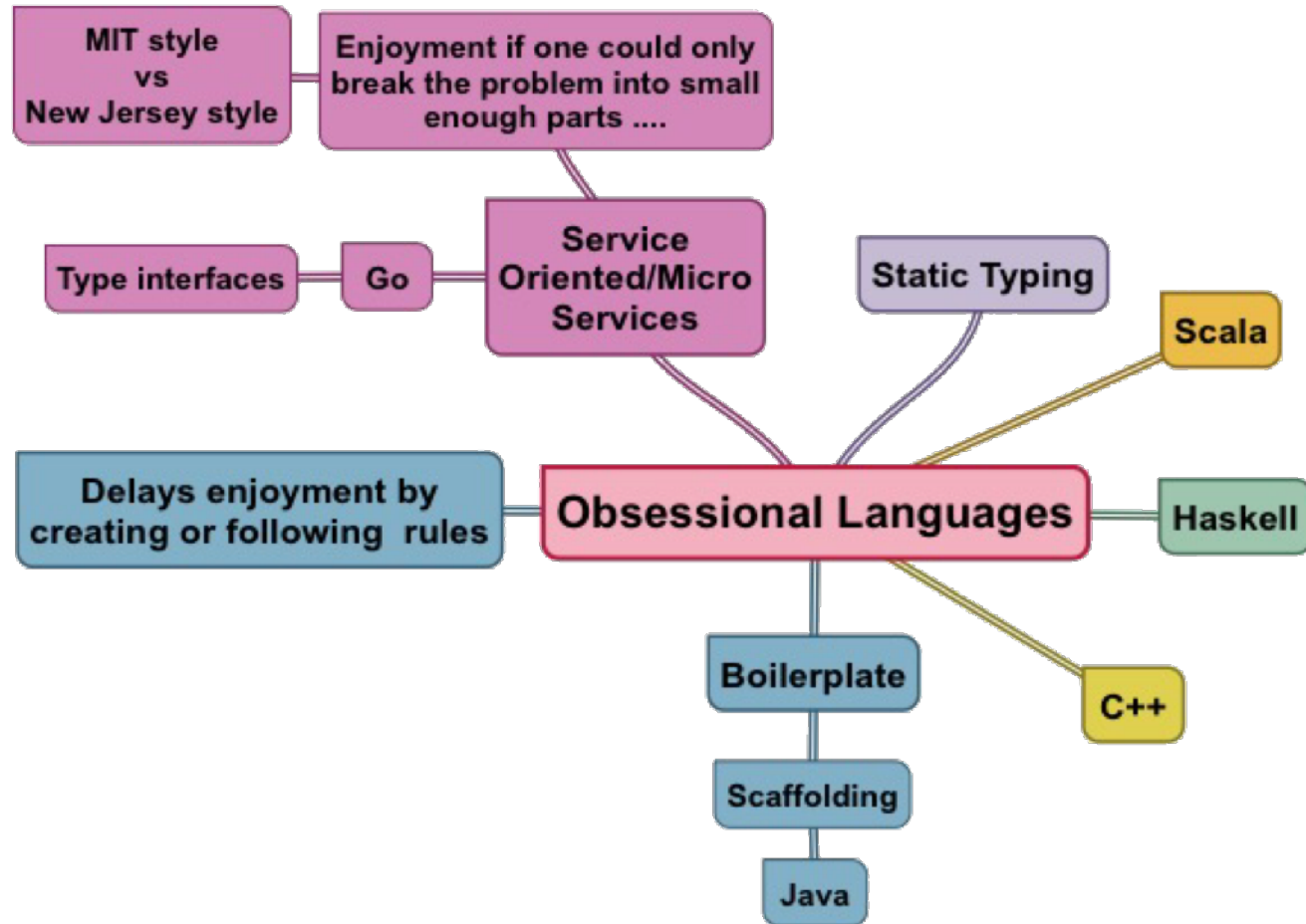


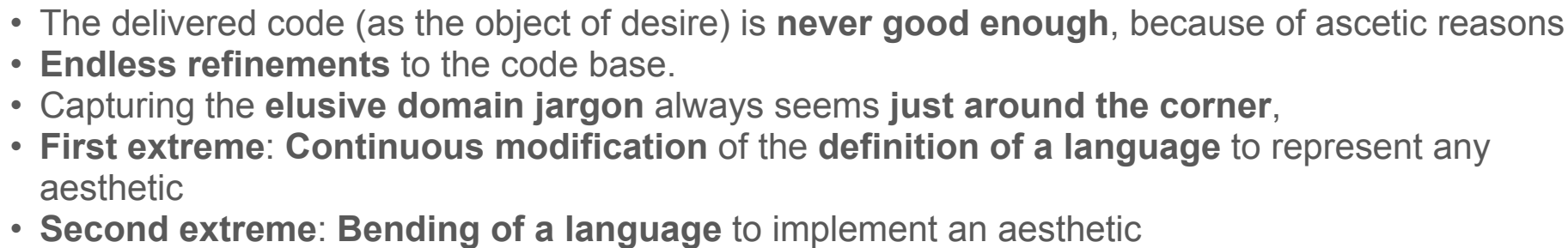
Perversion Languages - Cont'd



Obsessive Languages

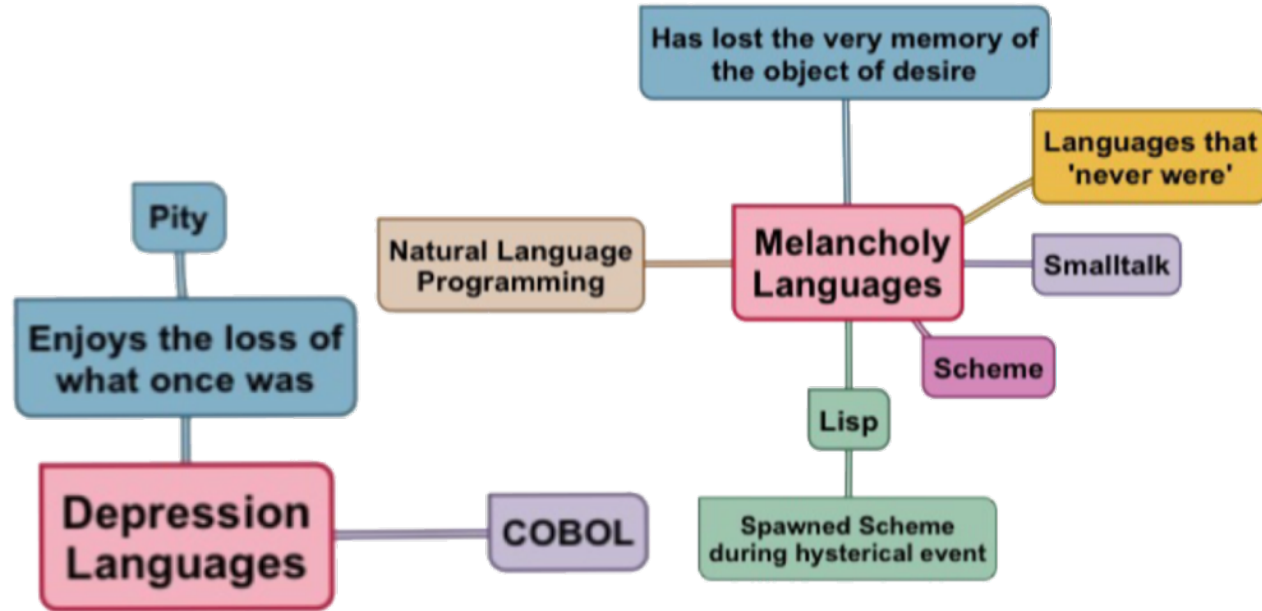
- Enjoys activity that **forestalls the end result**
- **Type systems, boilerplate, or even case sensitivity**
- **Final delivery** of code brings about **too much enjoyment**.
 - e.g. Resistance to continuous delivery processes).





Depression and Melancholy

- Happens **within any structure**
- **Stopping** up of the **circulation** around the object of desire.
- In **depression**, the **object is lost** and enjoyment is retrieved from the **reminiscing of the loss**.
- In **melancholy** the pristine **memory of the object is lost** (a **loss of a loss**) so the enjoyment comes from the **romantic attitude** with respect to the history of the language.



Conclusion

- If early speech acts have an affect on how our enjoyment is structured, then **we should be able to locate patterns and biases in our decisions.**
- People have **different ways of enjoying**, which is one motive for the diversity of languages
- We can appeal to the influence of **psychoanalytic structures** when explaining why our our **desires are pulled in irrational directions**
- Psychoanalytic **structures** allow us to
 - **Critique** programming languages and communities
 - **Account** for some of the diversity in the languages
 - **Design** new languages with a target audience
 - **Increase** our tolerance for other language communities