

The Pervert's Guide to Computer Programming Languages

Programming languages are created to concisely model a specific problem or to maximize expression while solving a broad range of problems. Psychoanalysts have noted that many decisions we make as humans are not based on rational premises, but rather are based on fears and desires that stem from upbringing and our societal ideologies. If we use the psychoanalysis of Jacques Lacan and Slavoj Zizek to critique programming languages we can **determine if there are ulterior motives for the origins of these languages** and how they fit into our everyday libidinal economy.

Part I: An Introduction to Psychoanalysis



Lacan and Zizek

Jacques Lacan is a French psychoanalyst who is also extremely influential within French philosophy. He is famous for popularizing concepts such as the mirror image, the big Other, and cryptic sayings such as 'The unconscious is structured like a language', and 'There is no sexual difference'. **Lacan's teachings revolved around desire and enjoyment.**

Lacan believes **all humans** fall into three basic mental structures which are **psychosis**, **perversion**, and **neurosis**¹.



Slavoj Žižek is a student of Lacan and **specializes in ideology**. His book 'The Sublime Object of Ideology' is generally considered to be his most influential work within philosophy. Žižek is most popularly known for his politically incorrect jokes in his public speeches and youtube videos. Žižek is also a critic of political correctness.

Pervert: The Analyst's Discourse

Pervert², in the Lacanian definition, actually means a person who **enjoys being a vessel of the rules**³. Žižek identifies the method of discourse that the psychoanalyst uses as the pervert's discourse⁴, because the analyst sits in the position of the object of desire for the hystericized subject. This means that the analysand projects their ideals onto the analyst during a process of questioning known as transference. When we use analysis to determine why we use a programming language, we are operating in the analyst's discourse. **It is important to have a**

¹ "... the three main diagnostic categories adopted by Lacan are structural categories ... Neurosis, Perversion, Psychosis", Fink, Bruce. *A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique*. Cambridge, MA: Harvard UP, 2000. Print. pp 76

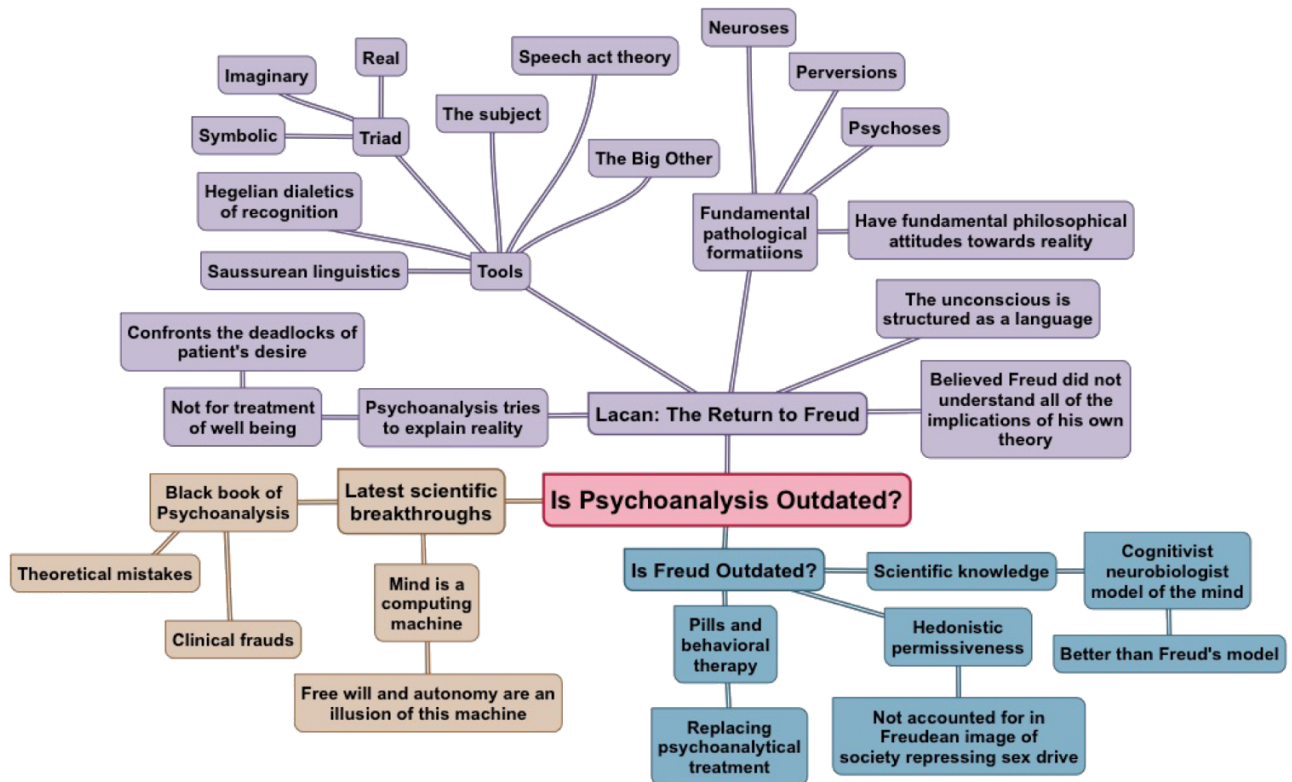
² "Thus, in psychoanalysis "perversion" is not a derogatory term, used to stigmatize people for engaging in sexual behaviors different from the "norm.", Bruce Fink. *A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique* (Kindle Locations 2460-2461). Kindle Edition.

³ "It is in so far as the subject makes himself the object of another will ... the sadist himself occupies the place of the object, but without knowing it, to the benefit of another, for whose [enjoyment] he exercises his action as sadistic pervert", Jacques Lacan, *The Four Fundamental Concepts of Psycho-Analysis*, Harmondsworth: Penguin Books 1979, p 163.

⁴ "This is how Miller's claim of the identity of the analyst's discourse and the discourse of today's civilization should be read: as an indication that this latter discourse (social link) is that of perversion. That is to say, the fact that the upper level of Lacan's formula of the analyst's discourse is the same as his formula of perversion (a-\$) opens up a possibility of reading the entire formula of the analyst's discourse also as a formula of the perverse social link: its agent, the masochist pervert (the pervert par excellence), occupies the position of the object instrument of the other's desire, and, in this way, through serving his (feminine) victim, he posits her as the hystericized/divided subject who "doesn't know what she wants." Rather, the pervert knows it for her, that is, he pretends to speak from the position of knowledge (about the other's desire) that enables him to serve the other; and, finally, the product of this social link is the master signifier, that is, the hysterical subject elevated into the role of the master (dominatrix) whom the pervert masochist serves.", Slavoj Žižek, <http://www.lacan.com/zizfour.htm>

basic understanding of Lacan's terms (such as perversion) in order to understand the cultural critiques of Slavoj Zizek and other Lacanians.

A Defense of Psychoanalysis



Freud is Dead

In his book 'How to read Lacan'⁵, Zizek spends time defending psychoanalysis by citing some of its shortcomings, starting with Sigmund Freud. Some of the problems with psychoanalysis include an outdated model of the mind (replaced by the cognitive neurobiologist model), outdated therapy (replaced by drugs and newer behavioral therapy), and an outdated view of sexual repression (replaced by modern sexual permissiveness). Adding to the critique of Freud, the latest scientific breakthroughs such in fields such as computer science demonstrate a computational account of the brain which seem to leave no room for psychoanalysis. As a result of these problems, **the general utility of psychoanalysis is largely questioned especially within the United States.**

Long Live Freud

⁵ Zizek, Slavoj. How to Read Lacan. New York (N.Y.): W. W. Norton, 2007. Print. pp 1-6

Lacan updates Freud's view of psychoanalysis by using **speech act theory** and **Hegelian philosophy** in order to get around some of its shortcomings. One of the more controversial changes Lacan makes is to say that **psychoanalysis is not for the treatment of well being but rather for the explaining of reality**.

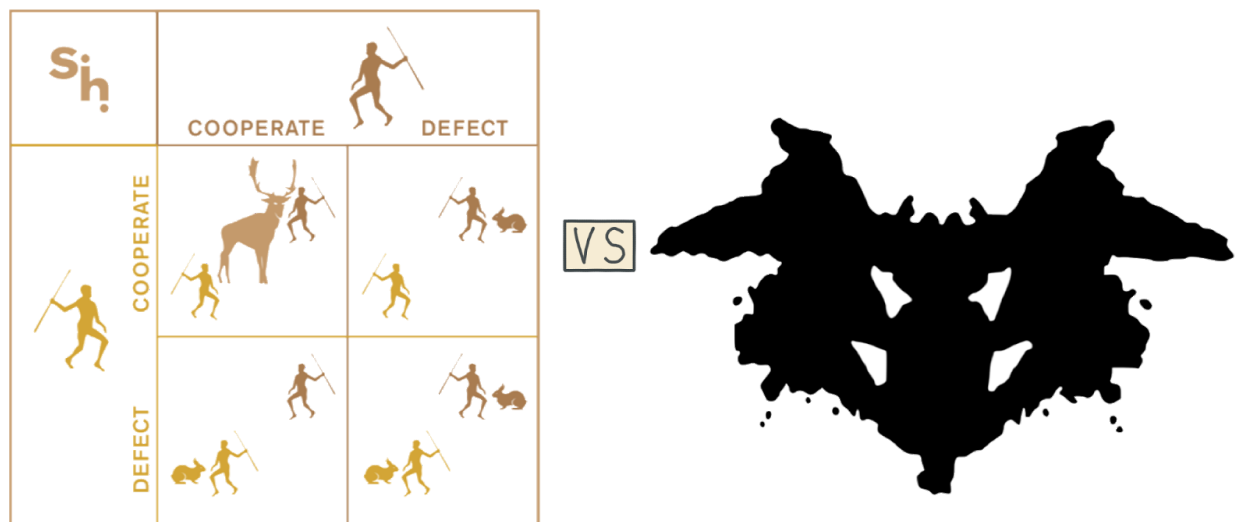


Psychoanalyst's Rhetorical Question

Psychoanalysis can take a pragmatic stance when compared with other stances concerning the ontological status of the mind. A key question psychoanalysis addresses is the reality of the causes and effects of the subconscious. A provocative question here would be: **'Is sexual trauma completely free, or must it be compensated for?'** One form of compensation would be what **psychoanalysis** calls **'the talking cure'**. The implicit argument here is that the unconscious is real if it has real consequences. **Computer scientists** are concerned with the mind only in so far that it can be modeled, hence the question: **'Can the target pass the Turing test?'** **Cognitive scientists** are preoccupied with the scientific aspect of the mind to the point

that the most relevant question to the others in the debate is: ‘**Can you repeat your findings?**’ Economists, are like the cognitive scientists in that they want repeatable findings but they also want to allow for agents to adjust to their environment *including the fact that they are being measured*. This means that economists and **game theorists** pose the question: ‘**Can you create a strategy?**’, where strategy is defined as those decisions that take other people's decisions into account. Finally, **philosophers** are preoccupied with the ontological status of the mind itself, and therefore ask the question: ‘**Can you locate first person experience?**’, while the closely related **cultural theorists** are more concerned with: ‘**Can you create or critique an ideology?**’

Part II: The Lacanian Model



The Purpose of Psychoanalytic Critique

The usefulness of psychoanalysis can be thought of as complementary to the usefulness of strategy. Strategic decisions, as understood in the fields of military conflict and economics, are decisions that take other people's decisions into account⁶. **While strategic decisions are normally thought of as being rational, or in accord with an agent's preferences,**

⁶ "Because everyone's strategy affects the outcome, a player must worry about what everyone else does and knows that everyone else is worrying about him or her." Davis, Morton D. (2012-07-31). Game Theory (Kindle Locations 218-219). Dover Publications. Kindle Edition.

psychoanalysis focuses on decisions that are irrational⁷. This is to say that the interesting psychoanalytic decisions go *against* the *conscious* preferences of the agent⁸.

Within software, psychoanalysis can help us target those decisions that are irrational or unconscious. Programmers have often debated the value of programming languages using various grading techniques such as utility⁹, power¹⁰¹¹, or aesthetic value.¹²¹³ **Missing from the conversation is the use of psychoanalytical critique to explore the unconscious desires of the developer.** Lacan brings a unique view to the discussion because of his concentration on the speech act and its affects on our anxieties and desires. Lacan literally believes that early speech acts directed towards us in our early years of development have thrust us into our status as a thinking subject. These speech acts have overwhelming effects on how we operate as we grow older.

⁷ "The rational actor model is, of course, basically a psychological model, and it has been widely tested by psychologists, most notably Amos Tversky, Daniel Kahneman, and their co-workers (Kahneman, Slovic and Tversky 1982). Psychologists have been generally critical of the rational actor model, and it is not widely used in psychological research." Gintis, Herbert (2009-01-26). *Game Theory Evolving: A Problem-Centered Introduction to Modeling Strategic Interaction* (Second Edition) (Kindle Locations 1453-1456). Princeton University Press. Kindle Edition.

⁸ "... Lacan advocates that we recognize practical anti-humanism, an ethics that goes beyond the dimension of what Nietzsche called 'human, all too human', and confronts the inhuman core of humanity.", Zizek, Slavoj. *How to Read Lacan*. New York (N.Y.): W. W. Norton, 2007. Print. pp 46

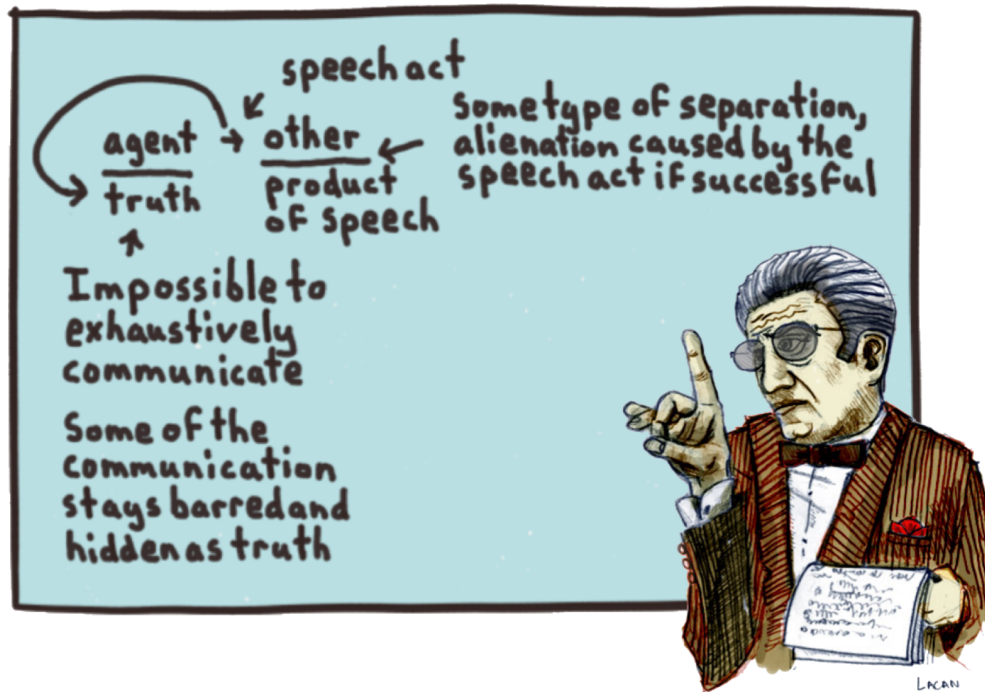
⁹ "Of course, none of this is true. There are no easy answers. There is no such thing as a best solution, be it a tool, a language, or an operating system. There can only be systems that are more appropriate in a particular set of circumstances. This is where pragmatism comes in. You shouldn't be wedded to any particular technology, but have a broad enough background and experience base to allow you to choose good solutions in particular situations." Hunt, Andrew; Thomas, David (1999-10-20). *The Pragmatic Programmer: From Journeyman to Master* (Kindle Locations 177-181). Pearson Education. Kindle Edition.

¹⁰ "The biggest debate in language design is probably the one between Those who think that a language should prevent programmers from doing stupid things, and those who think programmers should be allowed to do whatever they want. Java is in the former camp, and Perl in the latter.", Graham, Paul (2004-05-18). *Hackers & Painters: Big Ideas from the Computer Age* (Kindle Locations 2393-2394). O'Reilly Media. Kindle Edition.

¹¹ "But the top percentile of programmers in any language are always forced to learn some sort of way to write programs that write programs: macros. Because it is the best language for writing macros, the smartest and most determined and most curious programmers always end up at lisp.", Hoyte, Doug. "1." *Let Over Lambda: 50 Years of Lisp*. S.I.: Doug Hoyte/HCSW and Hoytech Production, 2010. 3. Print.

¹² "... this quality. Alexander's search, culminating in pattern languages, was to find an objective (rather than a subjective) meaning for beauty, for the aliveness that certain buildings, places, and human activities have. The objective tive meaning is the quality without a name, and I believe we cannot come to grips with Alexander in the software community unless we come to grips with this concept", Richard P. Gabriel. *Patterns of Software: Tales from the Software Community* (Kindle Locations 598-600). Kindle Edition.

¹³ "What makes a computer program readable? In other words, what is beautiful code? Although different people have different standards about what a beautiful program might be, judging the attributes of computer code is not simply a matter of aesthetics. Instead, computer programs are judged according to how well they execute their intended tasks. In other words, "beautiful code" is not an abstract virtue that exists independent of its programmers' efforts. Rather, beautiful code is really meant to help the programmer be happy and productive. This is the metric I use to evaluate the beauty of a program. -- Yukihiro Matsumoto", Oram, Andy; Wilson, Greg (2007-06-26). *Beautiful Code: Leading Programmers Explain How They Think* (Theory in Practice (O'Reilly)) (Kindle Locations 11672-11676). O'Reilly Media. Kindle Edition.



The Privileged Center

Philosophers call having a privileged or preferred concept at the center of a model of human understanding a *structure*¹⁴. *Structuralists* try to tease out underlying, privileged concepts in language in order to define how all humans behave. *Post-structuralists* believe that there are no privileged structures, and use various techniques such as deconstruction to subvert or decenter these privileged concepts. Žižek believes Lacan is ultimately on the side of structuralists because Lacan gives a privilege to at least two concepts: the ideas that **speech acts are both performative and reflexive**¹⁵. That it is to say **Lacan believes the speech act**¹⁶ irreducibly announces 'I am communicating something right now'.

Lacan uses the speech act as the foundation for how we develop into our psychoanalytic structures which have an overwhelming affect on what we desire and fear.

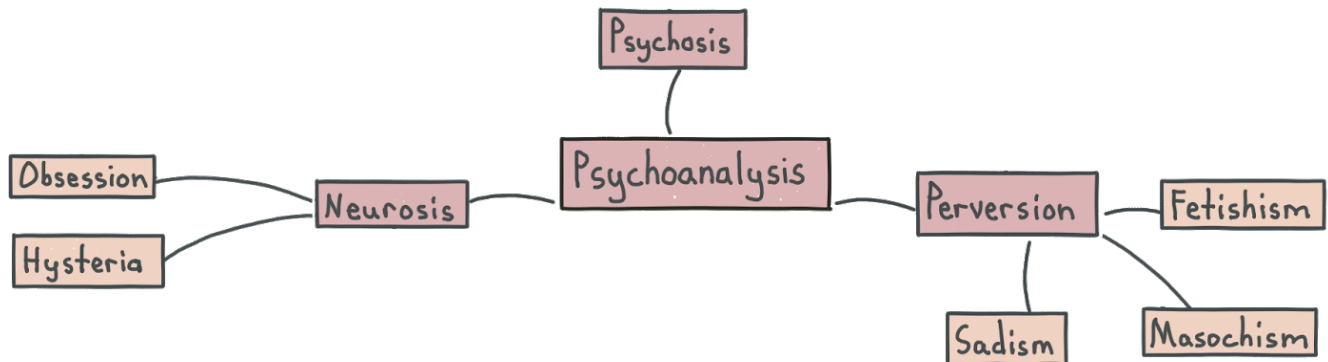
Enjoy your Symptom

¹⁴ "... in the era of 'structuralism' (theories based on the notion that all human activity is regulated by unconscious symbolic mechanisms)...", Žižek, Slavoj. *How to Read Lacan*. New York (N.Y.): W. W. Norton, 2007. Print. p 46

¹⁵ "This reflexive moment of declaration means that every utterance not only transmits some content, but, simultaneously, conveys the way the subject relates to the content", Žižek, Slavoj. *How to Read Lacan*. New York (N.Y.): W. W. Norton, 2007. Print. p 16

¹⁶ Speech act theory is a branch of linguistics and philosophy of language that describes what happens when we speak. Lacan uses speech act theory to describe the effect of language on the psychoanalytic level. According to Lacan's view all speech acts fall into one of four discourses. The analytic discourse, also known as the perverts discourse, is one of these. Within the analytic discourse, the analyst (or the object of desire) interrogates what is known as the split subject. during this interaction the unconscious is forced to the surface.

Jouissance is the French word for enjoyment of rights, property, and sexual desire. Enjoyment in Lacanian psychoanalysis describes a person's relationship with the object of desire. **This type of enjoyment is somewhat irrational** and relates to what Freud calls the 'death drive'¹⁷. This is opposed to the more well known 'sex drive' and 'pleasure principle' which are more in the tune with economic rationality. This death drive is often used to describe how **an excessive enjoyment comes from staging our own failure in order to reach the 'object of desire'**¹⁸.



Lacanian Structures

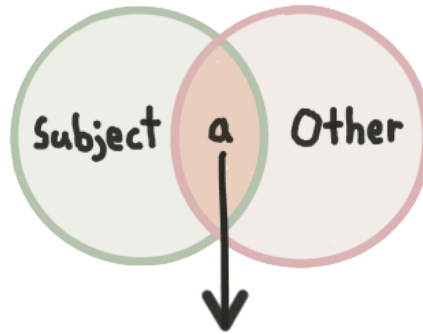
Lacan's structures are not part of the traditional DSM¹⁹ classifications that psychologists use to classify mental states, which are more reductionist in nature²⁰. These structures are much more nuanced. A truncated explanation of these pathologies, from the standpoint of enjoyment, are included below.

¹⁷ "Freud equates the death drive with the so-called 'compulsion-to-repeat, an uncanny urge to repeat painful past experiences that seems to outgrow the natural limitations of the organism affected by it and to persist even beyond the organism's death." Zizek, Slavoj. *How to Read Lacan*. New York (N.Y.): W. W. Norton, 2007. Print. pp 63

¹⁸ "... sometimes the shortest way to realize a desire is to bypass its object-goal, make a detour, postpone its encounter. What Lacan calls object petit a is the agent of this curving: the unfathomable X on account of which, which we confront the object of our desire, more satisfaction is provided by dancing around it than by making straight for it." Zizek, Slavoj. *How to Read Lacan*. New York (N.Y.): W. W. Norton, 2007. Print. pp 77

¹⁹ "Lacan's diagnostic schema is remarkably simple, including only three main categories: neurosis, psychosis, and perversion. And unlike the categories developed in the DSM-IV, which provide little concrete direction for the psychotherapist regarding how to proceed with different categories of patients, Lacanian diagnoses find immediate application in guiding the practitioner's aims and in indicating the position the therapist must adopt in the transference." Bruce Fink. *A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique* (Kindle Locations 1086-1090). Kindle Edition.

²⁰ "In Lacan's view, there are structures that are far more fundamental than those of "addictive personalities," "introverts," "extroverts," "women who love too much," "men who are afraid of intimacy," and "codependents." American psychology and psychiatry tend to deal only with what immediately ately meets the eye ... Thus, they often succumb to the banal simplicity of mainstream American scientific thought: divide and conquer-break every pattern down into its smallest isolable parts, give those parts new names, and attempt to treat them (with drugs whenever possible, or with specific "therapeutic techniques") as logically separate 'disorders.'" Bruce Fink. *A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique* (Kindle Locations 1675-1678). Kindle Edition.



Alienation and Separation

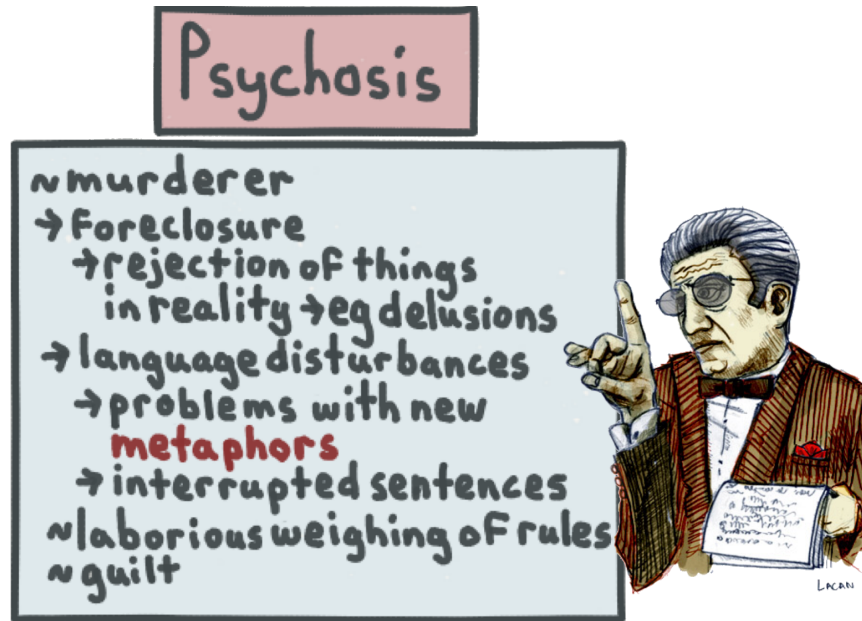
The different structures of Lacan all start off with the early stages of a child's development. Lacan believes the child originally has no distinction between itself and the mother²¹. At a certain stage the child begins to see the mother as another (an 'other') through various prohibitions and injunctions that regulate the child's relationship to the desired object (eg the breast). The first stage of this break is called *alienation* and the second stage is called *separation*. Alienation²² is the announcement from of a primary caretaker (e.g. the father) of a prohibition to the child (eg a simple 'no!'). Separation²³ is the refinement of this prohibition using specific language (e.g. "your mother does not desire you in that manner, she desires me").

Psychotics do not experience alienation or separation. Perverts experience alienation but not separation. Neurotics experience both alienation and separation.

²¹ "Lacan does not claim that all mothers have a tendency to smother or devour their children (though some do); rather, he says that children "perceive" their mOther's desire as dangerous or threatening. ing. This "perception" reflects in some cases the child's wish for the mother to take her child as her be-all and end-all (which would ultimately annihilate the child as a being separate from its mother), and in other cases a reaction to a genuine tendency on the mother's part to obtain a kind of satisfaction with her child that she has not been able to obtain elsewhere.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1140-1143). Kindle Edition.

²² "In alienation, the Other dominates, since the child comes into being as a subject of language (the child is, we might say, enticed into language, seduced into making the "forced choice" between pleasure and language, between the pleasure principle and the reality principle);", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 2885-2887). Kindle Edition.

²³ "In separation, object a as the Other's desire comes to the fore and takes precedence over or subjugates the subject;", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 2887-2888). Kindle Edition.



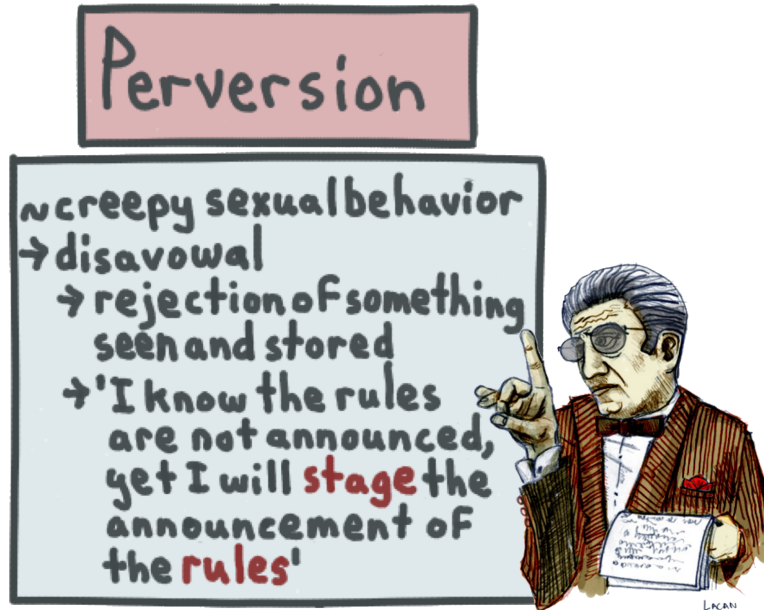
Psychosis

Psychosis is the description Lacan uses for humans that do not break from their primary caretaker. This means that the child is engulfed (usually by the mother, whose speech acts draw the child closer) and never gains a normative relation with language. At this level the subject remains at the *imaginary* level instead of the *symbolic* level when relating to others. This can have dramatic results like language disruptions²⁴ and delusions (e.g. voices or messages) that permeate the subject's experience. The psychoanalytic description of the primary mechanism for the subject here is *foreclosure*²⁵, meaning the subject rejects things in reality. It is important to remember that **psychosis does not mean an evil person, murderer, or non-functioning member of society**²⁶.

²⁴ "... in contemporary psychiatry there is growing empirical evidence that schizophrenia is characterized by abnormal interpretation of verbal and non-verbal information, with a great difficulty to put such information in the appropriate context. Neuro-scientific contributions have investigated this difficulty suggesting the possibility of interpreting schizophrenia as a semiotic disorder which makes the patients incapable of understanding the figurative meaning of the metaphoric speech ...", Ribolsi, Michele. "Metaphor in Psychosis: On the Possible Convergence of Lacanian Theory and Neuro-scientific Research." *Frontiers in Psychology*. Frontiers Media S.A., 3 June 2015. Web. 25 Feb. 2017. <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4452801/>>.

²⁵ "Foreclosure involves the radical rejection of a particular element from the symbolic order (that is, from language), and not just any element: it involves the element that in some sense grounds or anchors the symbolic order as a whole.", Bruce Fink. *A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique* (Kindle Locations 1128-1129). Kindle Edition.

²⁶ "In psychosis, on the other hand, the imaginary, symbolic, and real are never tied together ... Lacan suggested that we can catch a glimpse of their failure to work together ... by looking at James Joyce's character Stephen Daedalus (who is based heavily on Joyce himself) ... This lack of connection between the imaginary register and the symbolic and real registers is a recipe for psychosis ... Lacan suggested that it is Joyce's writing and the name that he makes for himself through his writing that prevents the imaginary from becoming completely detached from the symbolic and real in his case. In this sense, his writing serves him as what Lacan called a "sinthome" (which is an old French spelling of "symptom")— a symptom or knot that takes the place of the Oedipus complex for him— which almost literally allows him to keep body and soul together.", Fink, Bruce (2011-04-26). *Fundamentals of Psychoanalytic Technique: A Lacanian Approach for Practitioners* (Kindle Location 6171-6203). W. W. Norton & Company. Kindle Edition.



Perversion

In perversion the subject wants to **complete the rules** in some way. Perversion occurs when a subject experiences alienation from the primary caretaker, which is the first of two steps towards what we think of as normal functioning. the **three common sub-structures under perversion** are ***fetishism*, *sadism*, and *masochism***. the primary mechanism of the pervert is *disavowal*²⁷, which is the rejection of something seen and stored. **It is important to remember that perversion does not necessarily mean deviant sexual behavior**²⁸.

²⁷ "While disavowal could be described as a defense mechanism, a defense against the father's demand that the child sacrifice jouissance, we could instead view it, like Hans' phobia, as not simply evasive but as an attempt to prop up the paternal function (expressed in the father's law)-an attempt to make the Other pronounce the law, or to indicate oneself the place of the law-so that the anxiety-relieving separation can come about.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 2579-2581). Kindle Edition.

²⁸ "... in psychoanalysis "perversion" is not a derogatory term, used to stigmatize people for engaging in sexual behaviors different from the 'norm.'", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 2460-2461). Kindle Edition.

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



Fetishism

A **fetish** is a relationship with an **object** that is somehow 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 naming²⁹ of the desire of the caretaker.

Sadism

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



Sadism

²⁹ "... but every fetish does revolve around the question of the mother's lack. Only Lacan explains this to us in its full generality via the function of naming ...", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Location 2749). Kindle Edition.

Lacan's sadists don't enjoy causing direct harm, but rather they seek to cause anxiety to the victim³⁰. Through threatening the victim the sadist hopes to force the victim to refine what they desire. This refinement serves as proof for the sadist that the law/prohibition was announced.

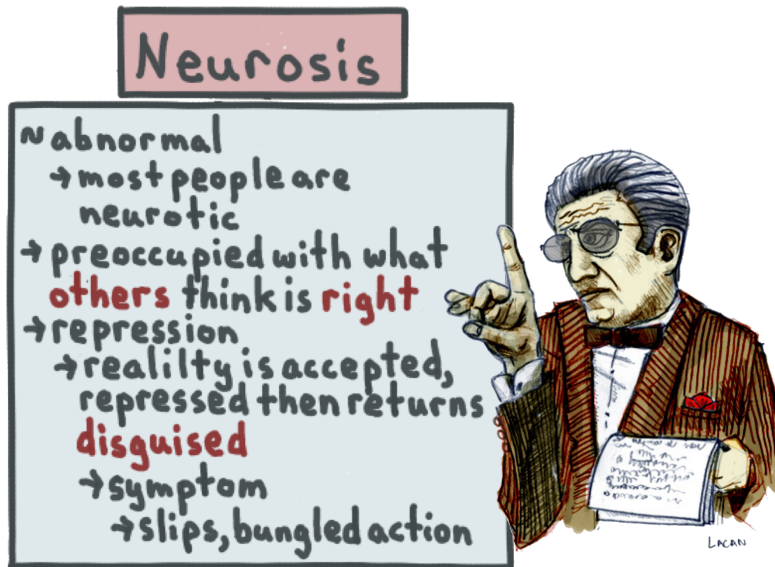


Masochism

Masochism is when the subject enjoys causing anxiety in the other by exposing themselves to harm. The other is provoked to announce that the event is 'too much' at some point, which is an announcement of the rules/prohibitions³¹.

³⁰ "In every movie in which a sadist is depicted, he does everything possible to generate anxiety in other people. His goal is not simply to harm them; indeed, often this is but a contingency, a mere byproduct of his concern with making them anxiously anticipate a horrible, painful death or torment. The importance to the sadist of the victim's anxiety is thus recognized by the popular mind as well as by the sadist himself; indeed, in his fantasies he views it as an absolute condition—that is, as absolutely necessary if they are to provide pleasure.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 2821-2824). Kindle Edition.

³¹ "The Other's desire or will is accepted by the masochist instead of the law, in place of the law, in the absence of the law. As Lacan mentions, the Marquis de Sade (better known as a sadist, but in this instance manifesting decidedly masochistic tendencies) pushes his mother-in-law, Madame de Montreuil, to the point where she expresses her will that Sade be punished. It is her desire or will that has to serve Sade as a law. Not the law, but a law.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 2805-2808). Kindle Edition.



Neurosis

Neurosis is the structure that the vast majority of 'normal' humans fall into³² and can be separated into *obsession*, *hysteria*, and to a certain extent *phobia*. **Neurotics are preoccupied with what others think is right³³. The primary mechanism of neurotics is *repression*³⁴, where reality is accepted, repressed³⁵, then returns disguised (also known as a symptom³⁶).**

³² "People referred to in common parlance as "normal" do not have some special structure of their own; they are generally ally neurotic, clinically speaking—that is, their basic mechanism is repression.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1111-1112). Kindle Edition.

³³ "Neurosis ... implies ... considerable inhibition of the drives ...", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Location 1621). Kindle Edition.

³⁴ "Repression is responsible for the fact that, whereas the psychotic may reveal all of his or her "dirty laundry" with no apparent difficulty, airing all of the scabrous feelings and deeds anyone else would be ashamed to divulge, the neurotic keeps such things hidden from view, from others and from him- or herself.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1626-1627). Kindle Edition.

³⁵ "As Freud tells us in his essay "Negation," repression cannot occur unless the reality in question (the perception of a scene, for example) has already been accepted or affirmed at some level by the psyche.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1632-1633). Kindle Edition.

³⁶ "Neurosis ... implies ... the return of the repressed from within, as it were, in the form of Freudian slips, bungled actions, and symptoms ...", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Location 1621). Kindle Edition.

Obsession

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



Obsession

Obsessives seek to neutralize the other³⁷ and possess the object of desire. **They are primarily motivated by guilt³⁸ (from failing to adhere to the rules).** When obsessives get close to the other they tend to get overwhelmed³⁹.

Hysteria

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



Hysteria

³⁷ "... the obsessive seeks to neutralize or annihilate the Other.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Location 1724). Kindle Edition.

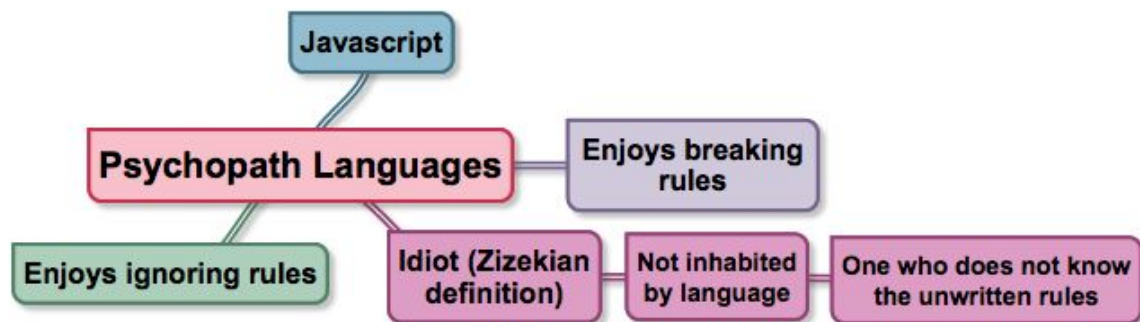
³⁸ "... obsessives react with guilt and aversion, ...", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Location 1687). Kindle Edition.

³⁹ "Desire is impossible in obsession, because the closer the obsessive gets to realizing his desire (say, to have sex with someone), the more the Other begins to take precedence over him, eclipsing him as subject. The presence of the Other threatens the obsessive with what Lacan calls "aphanisis," this fading or disappearance as subject.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1787-1788). Kindle Edition.

Hysterics wish to be the object of desire for the other⁴⁰. At the same time, the hysteric does not want to be the cause of satisfaction (because then the other would not desire the hysteric any more)⁴¹. **The primary motivator for the hysteric is repulsion**⁴² especially at being possessed or captured by the other.

Part III: Psychoanalysis and Programming Languages

Using psychoanalysis to critique the choice of computer programming languages utilizes the enjoyment portion of the lacanian structures. **Any programming language is compatible with any structure, but some languages use rules that lend themselves to specific structures.** For example, if a programmer with a hysteric structure uses an obsessional language, the hysteric will use the obsessive language as if it were a hysterical language. It is important to remember that adopted structures can have traits of one another. This means that an obsessive can have elements of hysteria⁴³ or perversion⁴⁴.



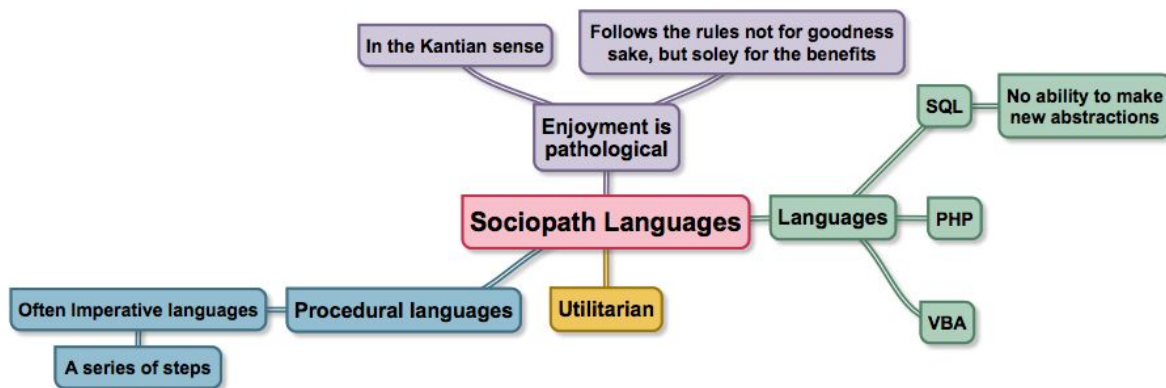
⁴⁰ "... the hysteric becomes master of the Other's desire-the the cause of his desire ...", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1832-1833). Kindle Edition.

⁴¹ "... yet at the same time she attempts to avoid being the person with whom he satisfies his desire. She keeps his desire unsatisfied in order to avoid being the object of his jouissance.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1833-1834). Kindle Edition.

⁴² "For Lacan, like Freud, the hysteric is someone who finds the Other's sexual satisfaction distasteful, and attempts to avoid being the object the Other gets off on.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1834-1835). Kindle Edition.

⁴³ "For in real-life clinical work, the more superficial indicators of obsession and hysteria (compulsive rituals, somatic symptoms, and so on) do not always appear to be decisive: one finds what are usually considered to be hysterical traits (for example, conversion or psychosomatic problems) in otherwise generally obsessive people, and obsessive traits in those who seem otherwise predominantly hysterical.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1689-1691). Kindle Edition.

⁴⁴ "The voyeuristic note in the fantasy contrasted markedly with Robert's concrete sexual activity, and suggested not a different diagnosis but simply the presence of "perverse traits"-in other words, traces of perversion that are almost invariably ably found in neurotics' fantasies.", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 2088-2089). Kindle Edition.



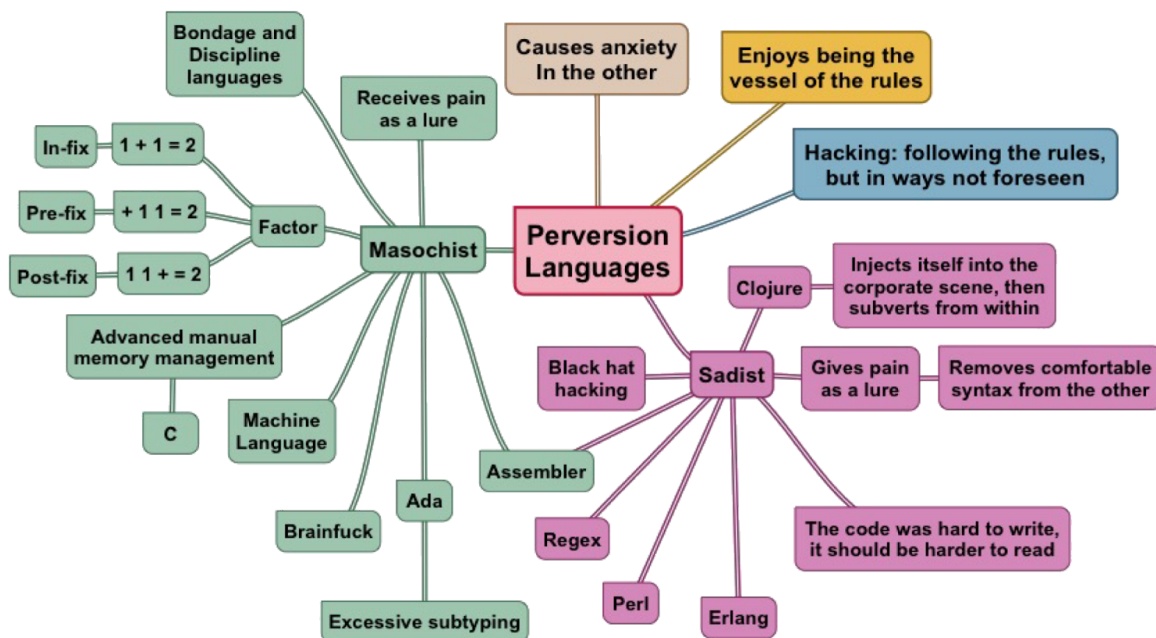
Psychotic Languages

The psychotic or sociopath⁴⁵ languages don't laboriously weigh the rules before creating an end product. One manifestation of this is weak or loose typing⁴⁶. Some psychopath languages, analogous to non-functional (ie delusional) subjects, will have language disturbances like the failure to properly use metaphors. The means of abstraction⁴⁷ (i.e. method for modeling of a problem domain) in a psychopath language **will be cumbersome**. (or automatic implicit type casting). On the other side of the spectrum are the high-functioning psychopaths (who have a successful imaginary system built up) who are purely utilitarian. These languages have no internal *implicit* rules. The developer will not attribute *craftsmanship* as a part of the system of rules that comprise the sociopathic language. **Things like convention and idiomatic use of language tend to be frowned upon by the sociopathic language user.**

⁴⁵ "... the sociopath's use of language paradoxically matches the standard commonsense notion of language as a purely instrumental means of communication, as signs that transmit meanings. He *uses* languages, he is not caught up in it, and he is insensitive to the performative dimension. This determines a sociopath's attitude towards morality: while he is able to discern the moral rules that regulate social interaction ... he lacks the gut feeling of right and wrong ... that one cannot just do some things, regardless of the external social rules.", Zizek, Slavoj. *How to Read Lacan*. New York (N.Y.): W. W. Norton, 2007. Print. pp 13-14

⁴⁶ "JavaScript is a loosely typed language, so JavaScript compilers are unable to detect type errors. This can be alarming to people who are coming to JavaScript from strongly typed languages. But it turns out that strong typing does not eliminate the need for careful testing. And I have found in my work that the sorts of errors that strong type checking finds are not the errors I worry about. On the other hand, I find loose typing to be liberating.", Crockford, Douglas (2008-05-08). *JavaScript: The Good Parts: The Good Parts* (Kindle Locations 137-140). O'Reilly Media. Kindle Edition.

⁴⁷ "... when we describe a language, we should pay particular attention to the means that the language provides for combining simple ideas to form more complex ideas. Every powerful language has three mechanisms for accomplishing this: primitive expressions, which represent the simplest entities the language is concerned with, means of combination, by which compound elements are built from simpler ones, and means of abstraction, by which compound elements can be named and manipulated as units.", Abelson, Harold, Gerald Jay. Sussman, and Julie Sussman. *Structure and Interpretation of Computer Programs*. Cambridge, MA: MIT, 1996. Print.



Perversion Languages

Perversion languages enjoy being the vessel of the rules. They want the rules announced by the other in some form. They do this by riding just inside of the rules. Both the sadist and masochist seem to enjoy witnessing pain (either the other's or their own) but this is just lure for the other. Both of those structures enjoy causing anxiety in the other. The fetishist enjoys using an object that stands in for the announcement of the rules.

The **masochist** developer enjoys proving to the other that they have taken a hard or impossible road with an excruciatingly difficult, tedious, or minimalistic language. It is the *witnessing* of the masochist's hard work done with the syntax, the architecture, or the tool chain that causes the anxiety in the other⁴⁸. **The masochist loves for the other to announce that a hard problem must be solved in some way requiring the discipline of the masochist⁴⁹.** In other words the other says 'I can't believe you did that'.

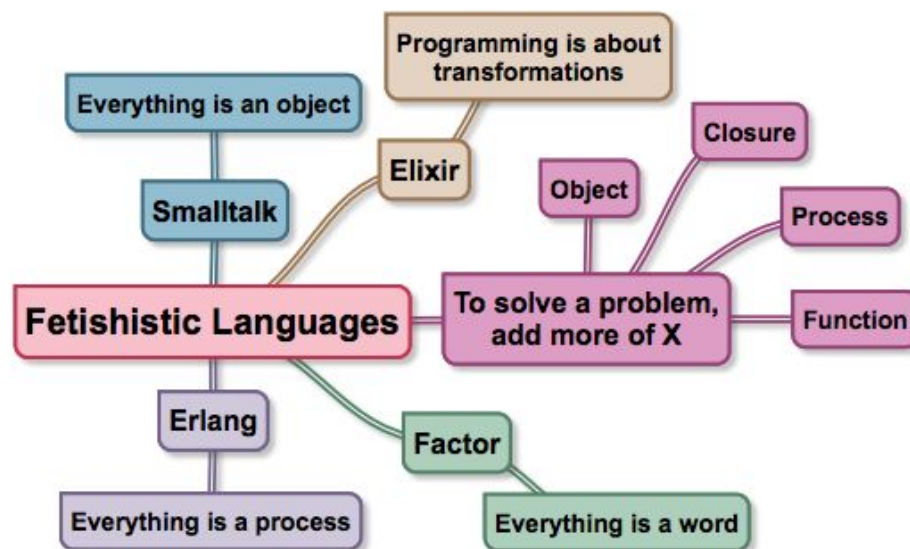
The **sadist** developer uses the delivered code to cause anxiety by way of threat of a loss to the other (e.g. through the loss of the other's comfort with a syntax^{50,51}). **The sadist threatens the**

⁴⁸ "Partisans of permissive languages ridicule the other sort as "B&D" (bondage and discipline) languages, with the rather impudent implication that those who like to program in them are bottoms. I don't know what the other side call languages like Perl. Perhaps they are not the sort of people to make up amusing names for the opposition.", Graham, Paul (2004-05-18). Hackers & Painters: Big Ideas from the Computer Age (Kindle Locations 2395-2397). O'Reilly Media. Kindle Edition.

⁴⁹ "In other words: the choice of C is the only sane choice. I know Miles Bader jokingly said "to piss you off", but it's actually true. I've come to the conclusion that any programmer that would prefer the project to be in C++ over C is likely a programmer that I really *would* prefer to piss off, so that he doesn't come and screw up any project I'm involved with.", Torvalds, Linux. "Linus Torvalds on C++." Linus Torvalds on C++. Linux-foundation.org, 6 Sept. 2007. Web. 26 Feb. 2017. <<http://harmful.cat-v.org/software/c++/linus>>.

⁵⁰ "I think that, collectively, we are infatuated with these two notions of easy. We are just so self-involved in these two aspects; it's hurting us tremendously. Right? All we care about is, you know, can I get this instantly and start running it in five seconds? It could be this giant hairball that you got, but all you care is, you know, can you get it. In addition, we're fixated on, oh, I can't; I can't read

other in such a way that the other will describe their own impotency. The other here says *'I thought that I measured up to the rules, but I don't'*.



The **fetishist** developer finds enjoyment when the fetishitic object is present. This may be a specific 'first order abstraction' such as functions, classes, closures⁵², processes⁵³, words⁵⁴, or even transformations⁵⁵. **The more the fetish object is present, the more the enjoyment it provides.** The presence of the fetishistic object stands in for the announcement of the rules.

that. Now I can't read German. Does that mean German is unreadable? No. I don't know German. So, you know, this sort of approach is definitely not helpful. In particular, if you want everything to be familiar, you will never learn anything new because it can't be significantly different from what you already know and not drift away from the familiarity.", Hickey, Rich. "Simple Made Easy." GitHub. Strange Loop 2011 - Sept 2011, 20 Oct. 2011. Web. 26 Feb. 2017.

<https://github.com/matthiasn/talk-transcripts/blob/master/Hickey_Rich/SimpleMadeEasy.md>.

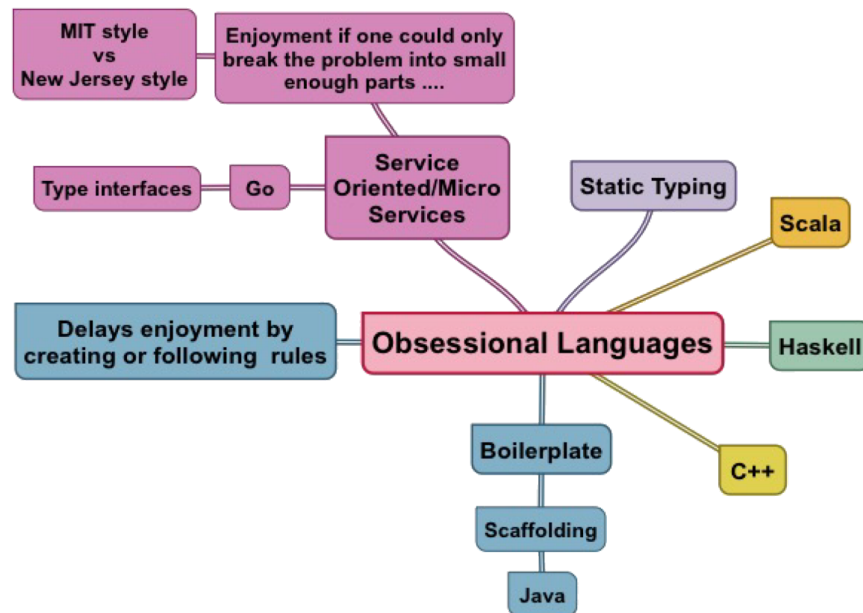
⁵¹ "Perl is easy, nearly unlimited, mostly fast, and kind of ugly.", Schwartz, Randal L.; foy, brian d; Phoenix, Tom (2016-10-06). Learning Perl: Making Easy Things Easy and Hard Things Possible (Kindle Location 289). O'Reilly Media. Kindle Edition.

⁵² "One of the conclusions that we reached was that the "object" need not be a primitive notion in a programming language; one can build objects and their behaviour from little more than assignable value cells and good old lambda expressions. —Guy Steele on the design of Scheme", , Hoyte, Doug. "1." Let Over Lambda: 50 Years of Lisp. S.I.: Doug Hoyte/HCSW and Hoytech Production, 2010. 3. Print.

⁵³ "So why did WhatsApp use Erlang and why does the Phoenix Framework outperform Ruby on Rails - precisely because we have millions of tiny web servers - and when we have lots of small things it's easy to spread them over lots of processors and make the system fault-tolerant and scalable.", Armstrong, Joe. "Joe Armstrong - Erlang and Other Stuff." Joe Armstrong - Erlang and Other Things. N.p., 13 Mar. 2016. Web. 26 Feb. 2017. <<http://joearms.github.io/2016/03/13/Managing-two-million-web-servers.html>>.

⁵⁴ "Factor belongs to the family of concatenative languages: this means that, at the lowest level, a Factor program is a series of words (functions) that manipulate a stack of references to dynamically-typed values, "Why Factor?" Factor Programming Language. N.p., n.d. Web. 25 Feb. 2017. <<https://factorcode.org/>>.."

⁵⁵ "Programming is transforming data, and the |> operator makes that transformation explicit.", Thomas, Dave (2016-10-24). Programming Elixir 1.3: Functional |> Concurrent |> Pragmatic |> Fun (Kindle Locations 2206-2207). Pragmatic Bookshelf. Kindle Edition.



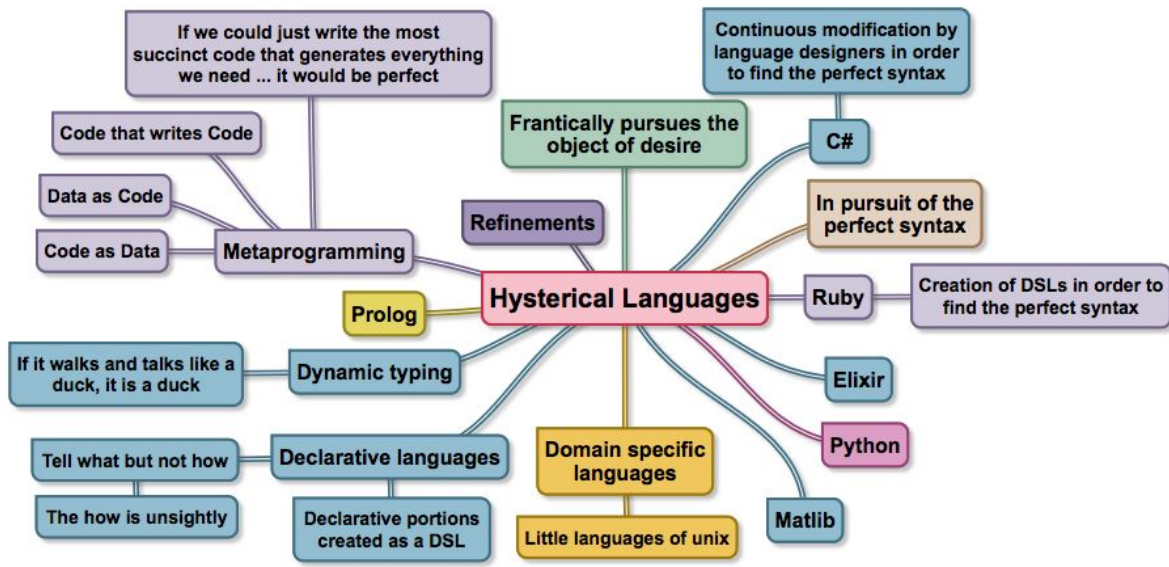
Obsessive Languages

The obsessive enjoys creating rules that forestall enjoyment. The developer here engages in any type of activity that forestalls the end result. This can be in the form of type systems^{56,57}, boilerplate⁵⁸, or even case sensitivity. The final delivery of code brings about too much enjoyment for the obsessive.

⁵⁶ "We argue that this compositional style of system construction has been neglected by the languages that push for design by type hierarchy. Type hierarchies result in brittle code. The hierarchy must be designed early, often as the first step of designing the program, and early decisions can be difficult to change once the program is written. As a consequence, the model encourages early overdesign as the programmer tries to predict every possible use the software might require, adding layers of type and abstraction just in case. This is upside down. The way pieces of a system interact should adapt as it grows, not be fixed at the dawn of time. Go therefore encourages composition over inheritance, using simple, often one-method interfaces to define trivial behaviors that serve as clean, comprehensible boundaries between components.", Pike, Rob. "1. Abstract." Go at Google: Language Design in the Service of Software Engineering. Google, Inc., 25 Oct. 2012. Web. 25 Feb. 2017. <<https://talks.golang.org/2012/splash.article>>.

⁵⁷ "... MIT/Stanford style of design. ... 'the right thing.' ... Simplicity-the design must be simple, both in implementation and interface. It is more important for the interface to be simple than the implementation. Correctness-the design must be correct in all observable aspects. Incorrectness is simply not allowed. The worse-is-better philosophy ...: Simplicity-the design must be simple, both in implementation and interface. It is more important for the implementation to be simple than the interface. Simplicity is the most important consideration in a design. Correctness-the design must be correct in all observable aspects. It is slightly better to be simple than correct. Early Unix and C are examples of the use of this school of design, and I will call the use of this design strategy the 'New Jersey approach.'", Gabriel, Richard. "The Rise of 'Worse Is Better'." The Rise of 'Worse Is Better'. Lucid.com, Jamie Zawinski, 1989. Web. 06 Mar. 2017. <<https://www.jwz.org/doc/worse-is-better.html>>

⁵⁸ "Succinctness is one place where statically typed languages lose. All other things being equal, no one wants to begin a program with a bunch of declarations. Anything that can be implicit, should be. The amount of boilerplate in a Java hello-world program is almost enough evidence, by itself, to convict.", Graham, Paul (2004-05-18). Hackers & Painters: Big Ideas from the Computer Age (Kindle Locations 3176-3178). O'Reilly Media. Kindle Edition.



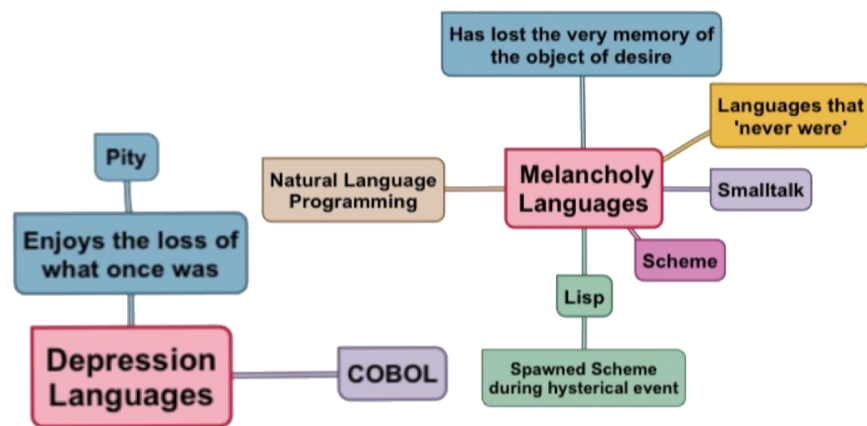
Hysterical Languages

Hysterical development lends itself to languages that facilitate endless refinements in the code base. The delivered code is never good enough, not merely because of pragmatic reasons but often because of ascetic reasons. The final goal of capturing the elusive domain jargon⁵⁹ seems just around the corner, where just one refinement may perfectly represent the domain. Within the hysterical languages there can be two extremes. One extreme is to work towards the capability to easily represent any aesthetic. In this extreme the work and enjoyment are in the *development* of the language itself⁶⁰. The other extreme is to consciously implement the aesthetic using the language as is⁶¹. This extreme bends the language to look more aesthetically pleasing. Somewhere in between are refinements to extremely large code bases that must stay available.

⁵⁹ "The overhead cost of all the translation, plus the risk of misunderstanding, is just too high. A project needs a common language that is more robust than the lowest common denominator. With a conscious effort by the team, the domain model can provide the backbone for that common language, while connecting team communication to the software implementation. That language can be ubiquitous in the team's work.", Evans, Eric (2003-08-22). Domain-Driven Design: Tackling Complexity in the Heart of Software (Kindle Locations 829-832). Pearson Education. Kindle Edition.

⁶⁰ "Also, I'm a great fan of evolving as opposed to just starting out new. You might fall in love with one particular idea, and then in order to implement it, you go create a brand-new language that's great at this new thing. Then, by the way, the 90% that every language must have, it kind of sucks at. There's just so much of that, whereas if you can evolve an existing language — for example, with C# most recently we've really evolved it a lot toward functional programming — it's all gravy at that point, I feel.", Biancuzzi, Federico; Chromatic (2009-03-21). Masterminds of Programming: Conversations with the Creators of Major Programming Languages (Theory in Practice (O'Reilly)) (Kindle Locations 7017-7021). O'Reilly Media. Kindle Edition.

⁶¹ "A big part of the modus operandi of the Ruby community is a more fluent approach— trying to make interacting with a library feel like programming in a specialized language. This is a strand of thinking that goes back to one of oldest programming languages, Lisp.", Fowler, Martin (2010-09-23). Domain-Specific Languages (Addison-Wesley Signature Series (Fowler)) (Kindle Locations 473-475). Pearson Education (USA). Kindle Edition.



Other Categories of Enjoyment

Based on the subject's relationship with the object of desire, there are various other categories of enjoyment that can be applied to languages. Depression within Lacanian psychoanalysis can be described as the stopping up of circulation around the object of desire. With depression, the object is lost and enjoyment is retrieved from the reminiscing of the loss. **With melancholy the very memory of the object is lost (a loss of a loss) so the enjoyment comes from the romantic attitude⁶²⁶³ 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 decisions⁶⁴. These structures influences our desires and pull them in irrational directions. When we critique programming languages and communities, we can use these psychoanalytic structures to account for some of the unexplained diversity in

⁶² "In those cases I've turned to Ruby since it's the dynamic language I'm most familiar with. It also helps that it's well-suited to writing DSLs with. Again, despite my personal familiarity and considerable liking of the language, you should not infer that these techniques are not applicable elsewhere. I enjoy Ruby a lot, but the only way you can get my language bigotry to become evident is by dissing Smalltalk.", Fowler, Martin (2010-09-23). Domain-Specific Languages (Addison-Wesley Signature Series (Fowler)) (Kindle Locations 554-557). Pearson Education (USA). Kindle Edition.

⁶³ "... programming languages are not just technology, but what programmers think in. They're half technology and half religion. 6 And so the median language, meaning whatever language the median programmer uses, moves as slow as an iceberg. Garbage collection, introduced by Lisp in about 1960, is now widely considered to be a good thing. Dynamic typing, ditto, is growing in popularity. Lexical closures, introduced by Lisp in the early 1960s, are now, just barely, on the radar screen. Macros, introduced by Lisp in the mid 1960s, are still terra incognita.", Graham, Paul (2004-05-18). Hackers & Painters: Big Ideas from the Computer Age (Kindle Locations 2811-2815). O'Reilly Media. Kindle Edition.

⁶⁴ (1) If early speech acts are effective, then you have a lacanian structure. (2) Early speech acts are effective. (3) Therefore you have a Lacanian structure. (4) if you have a lacanian structure, then your decisions have a trajectory that is curved by that structure. (5) You have a lacanian structure (<- 3). (6) therefore your decisions have a trajectory that is curved by that structure. (7) If you make a choice, then it is influenced by your Lacanian structure (<- 6). (8) The selection of a programming language is a choice. (9) Therefore the selection of programming language is influenced by your Lacanian structure

the languages. **We can use these structures to design new languages with a target audience in mind or to increase our tolerance for other communities.**