

The Plague of Programming Languages

Programming Language Fantasy: An analysis



The common notion of ideology is that there is an other, an antagonist, who possesses a dogmatic, and wrong, system of beliefs¹. It is almost always a pejorative and is to be cured by thinking scientifically. Slavoj Žižek's way of describing, critiquing, and even curing ideology is very different than the common notion. **Ideology, for Žižek, is a kind of trap that anyone, even reasonable, smart, and ethical people, can fall into**². He uses it in places that are usually considered bikesheds, which are places that are ripe for argument³⁴ (art, law, history, strategy, etc). These arguments produce the topics, methods, and motivations for cultural theory.

Within software generally, and computer programming languages specifically, the topic of ideology in some form has arisen using the common notion since its inception⁵⁶. There has yet

¹ "At first sight ... ideology consists in the very fact ... that the people 'do not know what they are really doing', that they have a false representation of the social reality to which they belong", Žižek, Slavoj. *The Sublime Object of Ideology*. London: Verso, 2009. 27. Print.

² "They know very well how things really are, but still they are doing it as if they did not know. The illusion is therefore double: it consists in overlooking the illusion which is structuring our real effective relationship to reality. And this overlooked, unconscious illusion is what may be called the ideological fantasy", Žižek, Slavoj. *The Sublime Object of Ideology*. London: Verso, 2009. 30. Print.

³ Watson, W. "Top Six Reasons Why You Love Bike Sheds – VULK COOP – Medium." Medium. VULK COOP, 12 Feb. 2016. Web. 30 May 2017. <<https://medium.com/vulk-coop/top-six-reasons-why-you-love-bike-sheds-aa9f0290c986>>

⁴ "Bikeshedding occurs when people actively engage in a discussion about a bike shed, or when people actively deny that an expert exists in order for their opinion to be valued higher", Watson, W. "On Bike Sheds and Experts." *On Bike Sheds and Experts* (2016): n. pag. 1 Jan. 2016. Web. 30 May 2017. <<https://s3-us-west-2.amazonaws.com/vulk-blog/OnBikeShedsandExperts.pdf>>.

⁵ "For a number of years I have been familiar with the observation that the quality of programmers is a decreasing function of the density of go to statements in the programs they produce.", Dijkstra, Edsger. "Goto Considered Harmful." *Go To Statement Considered Harmful*. Communications of the ACM, Vol. 11, No. 3, March 1968, 1 Mar. 1968. Web. 30 May 2017. <http://www.u.arizona.edu/~rubinson/copyright_violations/Go_To_Considered_Harmful.html>.

⁶ "From: Linus Torvalds Subject: Re: any chance of 2.6.0-test*? Date: Sun, 12 Jan 2003 11:38:35 -0800 (PST) On Sun, 12 Jan 2003, Rob Wilkens wrote: > > I'm REALLY opposed to the use of the word "goto" in any code where it's > not needed. Of course, in

to be an application using the Zizekian notion of ideology to programming languages mostly because some kind of understanding of Lacanian psychoanalysis is needed in order to make sense of the terms Slavoj Zizek uses⁷.

This text will describe Zizekian Ideology and then apply it to the ideas surrounding computer programming language communities.

Part I: Rationale

There are two issues regarding the plague of programming languages and ideology.

1. **What is the best tool for the job?**
2. **Is the choice of programming language ideological?**

With regard to (1), the common notion is to use the language that was designed to solve the problem at hand. Although this may work for domain specific languages, it is inadequate to describe the proliferation, reasoning, and critique of the large amount of *general* programming languages that are available. As far as (2) is concerned, the problem is exacerbated by the definition of ideology itself. The common notion of ideology runs into a dilemma when reflecting about how it is usually applied. With the common notion, we usually attribute to our antagonists either *stupidity*⁸, or an *evil nature*⁹. But when we peer into why we think the other is stupid, we find that they seem too organized (they have plans) and potent (they are able to carry out their plans, even when we work against them) to be considered unintelligent. On the other hand, when we say that our opponents are evil, they seem to adhere to a sophisticated ethical standard¹⁰, a method to the madness, that allows them to remain guilt free. Even worse, the sheer quantity of people who must be attributed unethical status, without our confirmation of each individual's specific unethical behavior, seems to be problematic as well.

stupid languages like Pascal, where labels cannot be descriptive, goto's can be bad. But that's not the fault of the goto, that's the braindamage of the language designer.", Torvalds, Linus. "Using Goto in Linux Kernel Code." Using Goto in Linux Kernel Code | Koblents.com. N.p., 12 Jan. 2003. Web. 30 May 2017.

<<http://koblents.com/Ches/Links/Month-Mar-2013/20-Using-Goto-in-Linux-Kernel-Code/>>.

⁷ "It is important to have a basic understanding of Lacan's terms (such as perversion) in order to understand the cultural critiques of Slavoj Zizek and other Lacanians.", Watson, W. "The Pervert's Guide to Computer Programming Languages." (n.d.): n. pag. 01 Jan. 2017. Web. 30 May 2017.

<<https://s3-us-west-2.amazonaws.com/vulk-blog/ThePervertsGuidetoComputerProgramming-ThePaper.pdf>>.

⁸ "The 'fool' is an innocent, a simpleton, but truths issue from his mouth that are not simply tolerated but adopted, by virtue of the fact that this 'fool' is sometimes clothed in the insignia of the jester. And in my view it is a similar happy shadow, a similar fundamental 'foolery', that accounts for the importance of the left-wing intellectual", Lacan, Jacques. The Seminar of Jacques Lacan. The Ethics of Psychoanalysis. N.p.: n.p., 1992. 182-83. Print.

⁹ "Everyone knows that a certain way of presenting himself, which constitutes part of the ideology of the right-wing intellectual, is precisely to play the role of what he is in fact, namely, a 'knave'. In other words, he doesn't retreat from the consequences of what is called realism; that is, when required, he admits he's a crook.", Lacan, Jacques. The Seminar of Jacques Lacan. The Ethics of Psychoanalysis. N.p.: n.p., 1992. 182-83. Print.

¹⁰ "... if the conservative knave ... in his answer to a concrete complaint ('Why are things so horrible for us ...') he also ... changes the tonality of the question from concrete complaint to abstract acceptance of the enigma of Fate", Žizlek, Slavoj. The Plague of Fantasies. London: Verso, 2009. 57. Print.

In order to address the issue of critiquing general programming languages and the paradox of the ignorant and the unethical, we will pursue two learning objectives:

1. We will describe Slavoj Zizek's framework for ideology.
2. We will apply the ideological framework to some ideas surrounding pursuit of the 'best' general purpose language.

Part II: The Framework

Triad: Imaginary, Symbolic, Real

Why is it so hard to think about ideology? It is because ideology is a non objective (subjective) problem. That is to say **ideology deals with the subject, which includes first person experience, the unconscious, and the fact that the agent itself often works against our efforts to analyze it.** In order to deal with the subject, which is the target of ideology, Zizek uses Lacan's triad of the **Imaginary, Symbolic, and Real**, nested into one another¹¹, in order to pin down and categorize the nuances of ideology.

The Lacanian **Imaginary**¹² **eliminates the unsightly, difficult, or even uninteresting details**¹³ from our everyday view of the world¹⁴. Zizek explains this level like the color and shape of the various pieces on the board within chess¹⁵.

While the Imaginary is our view of the physical chess pieces, the **Symbolic**, according to Zizek, is the **set of rules** for the game itself. There are different kinds of rules, separated into the categories of **explicit, implicit, and obscene**¹⁶, but these are all part of the symbolic level.

The **Real** is the most difficult level to understand of the triad, and literally means **that which is unsymbolizable**. The Real is not part of the rules of the symbolic directly, but indirectly as

¹¹ "... within the triad Real-Imaginary-Symbolic: the entire triad is reflected within each of its three elements.", Žižek, Slavoj. For They Know Not What They Do: Enjoyment as a Political Factor. London: Verso, 2008. xii. Print.

¹² "... three modalities of the Imaginary (the real - fantasy, which is precisely an imaginary scenario occupying the place of the Real; the imaginary - image as such in its fundamental function of a decoy; and the symbolic - again, the Jungian 'symbols' or New Age archetypes)", Žižek, Slavoj. For They Know Not What They Do: Enjoyment as a Political Factor. London: Verso, 2008. xii. Print.

¹³ "In his early work, it is the imaginary that is relied upon to cover over the hole in the symbolic. Indeed, according to Lacan, it is the imaginary-in this case, the mimicking of others engaged in by the psychotic-that often allows the psychotic to make it to age twenty or thirty without suffering a psychotic break or 'episode.'", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1462-1464). Kindle Edition.

¹⁴ "The imaginary register-that of visual images, auditory, olfactory, and other sense perceptions of all kinds, and fantasy-is restructured, rewritten, or "overwritten" by the symbolic, by the words and phrases the parents use to express their view of their child." Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 1280-1282). Kindle Edition.

¹⁵ "For Lacan, the reality of human beings is constituted by three intertangled levels: the Symbolic, the Imaginary, and the Real. This triad can be nicely illustrated by the game of chess", Zizek, Slavoj. How to Read Lacan. New York: W.W. Norton, 2007. 8. Print.

¹⁶ "... there are rules (and meanings) that I follow ... but of which ... I can become at least partially aware ... and there are ... rules ... that haunt me in ignorance. Then there are rules and meanings I know of, but must not be seen to know of ...", Zizek, Slavoj. How to Read Lacan. New York: W.W. Norton, 2007. 9. Print.

fissures in the rules¹⁷. Zizek associates this with the *context surrounding* a game of chess. For instance, during a chess game a player can overturn the chess board which would be outside the rules and physical aspects of chess. The Real is important because it is where antagonisms, such as paradoxes, contradictions, and traumas, are represented within the rules and the physical.



As we have explored previously, **the most pervasive notion of ideology is a dogmatism which is wrong, yet believed.** Another **common notion of ideology would be that which is unscientific.** The latter can be dismissed immediately, unless we are to believe history and law, neither of which are experimentally reproducible, are *necessarily* ideology. The former leaves out crucial elements, such as how the ideology is reproduced, how it is structured, and the negative connotations seem to leave no room for the positive ideological notions such as love¹⁸.

Symptom

A symptom is something that is embarrassing when witnessed, but makes sense when interpreted. Symptoms on the individual level are things like bungled language or physical tics such as blinking of the eyes or movement of the hands¹⁹. On the group level, a symptom occurs when a whole group integrates and accepts a paradox, contradiction, or protrusion that acts like

¹⁷ "... for Lacan, the Real ... has to be totally de-substantialized. It is not an external thing that resists being caught in the symbolic network, but the fissure within the symbolic network itself.", Zizek, Slavoj. *How to Read Lacan*. New York: W.W. Norton, 2007. 72. Print.

¹⁸ "It is for this reason that finding oneself in the position of the beloved is so violent a discovery, even traumatic: being loved makes me feel directly the gap between what I am as a determinate being and the unfathomable X in me that causes love. Lacan's definition of love - 'Love is giving something one doesn't have ...' - has to be supplemented with ' ... to someone who doesn't want it'", Zizek, Slavoj. *How to Read Lacan*. New York: W.W. Norton, 2007. 44. Print.

¹⁹ "The existence of a symptom-a convulsive movement of a part of the face, for example-is the only proof psychoanalysis has or needs of repression:" the tick may result from repressed hostile thoughts or a repressed wish to see more; in either case, some wish is being put down or pushed aside. "The neurotic symptom plays the role of the language [langue] in which repression can be expressed" (Seminar III, 72). It is a message to the Other.", Bruce Fink. *A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique* (Kindle Locations 1653-1656). Kindle Edition.

an exception to the rule²⁰. Within ideology, Žizek believes that symptoms serve as the exception that proves the rule, and they complete or close the ideological circle. The ultimate form of this is the **totality, where a complete integration of a rule and its exception not only coexist but are dependent on one another**²¹. An example of this would be Law, such as authoritarian laws against violence that are enforced by authoritarian violence²². With respect to the Imaginary, the symptom is when the Real pokes through and disturbs the smooth landscape of the Imaginary.



If symptoms are embarrassing when witnessed, but sensible when interpreted, **fantasies are alluring when witnessed but embarrassing when interpreted** (or reconstructed). Fantasy is what teaches us how to desire²³. It allows us to integrate the antagonisms into our daily lives. There are **seven facets to fantasy** that Žizek uses to critique ideology. These facets materialize as **external rituals with a cynical distance**²⁴ and are: **schemas, the gaze, intersubjectivity, lures as empty gestures, narratives, primordial loss, and inherent transgressions**²⁵. Fantasy, although complex, is necessary for a proper critique of ideology.

External Rituals and Cynicism

²⁰ “Does exactly the same not hold also for the Real of a social antagonism? Anti-semitism ‘reifies’ (by embodying it in a particular group of people) the antagonism inherent in society ...”, Žizek, Slavoj. *How to Read Lacan*. New York: W.W. Norton, 2007. 74. Print.

²¹ “... the ultimate paradox of the notion of ‘class struggle’ is that society is ‘held together’ by the very antagonism, split, that forever prevents its closure in a harmonious, transparent, rational Whole - by the very impediment that undermines every rational totalization”, Žizlek, Slavoj. *For They Know Not What They Do: Enjoyment as a Political Factor*. London: Verso, 2008. 100. Print.

²² “... the Jacobinal Terror was ... of a strictly democratic nature ... The Jacobins ... perceived themselves as protectors of the empty locus of Power, as a safeguard against false pretenders to this place: ‘The Terror is revolutionary in that it forbids anyone to occupy the place of Power; and in that sense, it has a democratic character.’”, Žizlek, Slavoj. *For They Know Not What They Do: Enjoyment as a Political Factor*. London: Verso, 2008. 268. Print.

²³ “... a fantasy constitutes our desire, provides its coordinates: that is, it literally ‘teaches us how to desire’”, Žizlek, Slavoj. *The Plague of Fantasies*. London: Verso, 2009. 7. Print.

²⁴ “This ‘purely material sincerity’ of the external ideological ritual, not the depth of the subject’s inner convictions and desires, is the true locus of the fantasy which sustains an ideological edifice.”, Žizlek, Slavoj. *The Plague of Fantasies*. London: Verso, 2009. 5. Print.

²⁵ “The Seven Veils of Fantasy”, Žizlek, Slavoj. *The Plague of Fantasies*. London: Verso, 2009. 1. Print.

The most unique part of Zizek's ideology is his incorporation of cynicism into the structure of the belief. This cynicism creates a distance that protects the believer of the ideology from critique. Lacan's example of this is the court jester²⁶ who, dangerously but skillfully, makes fun of the King and the rest of the court. The jester's critiques are impotent because they are merely jokes and because the jokes are impotent any critique of the jester is unwarranted. This cynical distance is present in modern ideology, such as Dilbertesque critiques of office life, and provides a way to critique the critiquer. **Anyone who asks if we actually believe the pointy haired boss' reasoning is an idiot.**

The Seven Facets of Fantasy

Imaginary

On the level of the imaginary there are schemas²⁷ and the gaze²⁸. These facets of fantasy allow us to erase the unsightly, difficult, or insignificant. The imaginary is analogous to information hiding within software design, hiding those things that are unimportant to the big picture.

The schema of fantasy is how the individual structures their place in the fantasy. The schema is related to the *fundamental* fantasy structure²⁹ of Jacques Lacan's clinical structures. When Zizek imports these structures into his view of ideology, he refers to them more loosely, and calls them subject positions³⁰. **When an individual is part of a fantasy, their Lacanian structure is what allows the transformation of regular objects into objects of desire³¹.**

A popular part of Jacques Lacan's psychoanalysis and philosophy that has been imported into film critique is the concept of the gaze. **The gaze is the point from which fantasy is**

²⁶ "The 'fool' is an innocent, a simpleton, but truths issue from his mouth that are not simply tolerated but adopted, by virtue of the fact that this 'fool' is sometimes clothed in the insignia of the jester. And in my view it is a similar happy shadow, a similar fundamental 'foolery', that accounts for the importance of the left-wing intellectual", Lacan, Jacques. The Seminar of Jacques Lacan. The Ethics of Psychoanalysis. N.p.: n.p., 1992. 182-83. Print.

²⁷ "Lacan refers to the analysand's fixation on the cause as the "fundamental fantasy": the fundamental relationship between the subject (not the ego) and his or her elective cause, the subject as positioned with respect to the cause. ... What does fantasy stage but the way the subject **imagines** him- or herself in relation to the cause, to the Other's desire as cause?", Bruce Fink. A Clinical Introduction to Lacanian Psychoanalysis: Theory and Technique (Kindle Locations 844-846). Kindle Edition.

²⁸ "... ideal ego is imaginary, what Lacan calls the 'small other', the idealized mirror-image of my ego ...", Zizek, Slavoj. How to Read Lacan. New York: W.W. Norton, 2007. 44. Print.

²⁹ "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 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.

³⁰ "... the subjective position of the obsessional neurotic, the incessant procrastination, the endless precautions, ... characterize his approach. At the same time this reference to obsessional neurosis (not as a clinical entity, of course, but as a subjective position ...", Žižek, Slavoj. The Sublime Object of Ideology. London: Verso, 2009. 217. Print.

³¹ "... a fantasy constitutes our desire, provides its coordinates; that is, it literally 'teaches us how to desire'", Žižek, Slavoj. The Plague of Fantasies. London: Verso, 2009. 7. Print.

experienced, recounted, or told³². There are really two important aspects of the gaze which are on the imaginary and symbolic levels. The first is how the subject views themselves with respect to ethical rules (the ideal ego³³), which hides imperfections. The second (the ego ideal³⁴) is how the subject thinks others (including the Big Other, the system of rules themselves) view them.

Symbolic

On the level of the symbolic, we have the intersubjective, the lures, the inherent transgression, and the primordial loss. These facets rely mostly in the chain of social rules that link us all together.

Intersubjectivity is the component of fantasy that externalizes belief. It is the part that describes how we rely on others, whether human agents³⁵ or physical items (such as a Tibetan prayer wheel³⁶ or canned laughter) to believe for us. Lacan's maxim 'Desire is the desire of the other' is represented here.

Lures utilize the implicit and obscene types of rules within the symbolic. Lures are a trap that use autonomy as the bait. **The structure of a lure is a choice that must never be made**³⁷. A simple example is a simple greeting: 'Hello, how are you doing'. The set of rules are as follows:

1. (Explicit) You should show concern for people with a greeting.
2. (Implicit) You should not ever *actually* answer (1) honestly or expect an honest answer.
3. (Obscene) Talking about or admitting (2) is a separate and additional violation to (2)

So imagine the following interaction: Jake: "Hello, how is your day going". Jane: "Oh, not good, I have diarrhea". This would be (1), (2), and the literal expression of it here is (3). The obscene

³² "Apropos of a phantasmic scene, the question to be asked is thus always: for which gaze is it staged? Which narrative is it destined to support?", Žižek, Slavoj. *The Plague of Fantasies*. London: Verso, 2009. 21. Print.

³³ "... 'ideal ego' stands for the idealized self-image of the subject (the way I would like to be, the way I would like others to see me) ...", Žižek, Slavoj. *How to Read Lacan*. New York: W.W. Norton, 2007. 44. Print.

³⁴ "... Ego-Ideal is the agency whose gaze I try to impress with my ego image, the big Other who watches over me and impels me to give my best, the ideal I try to follow and actualize ...", Žižek, Slavoj. *How to Read Lacan*. New York: W.W. Norton, 2007. 44. Print.

³⁵ "... reported by Freud of his little daughter fantasizing about eating a strawberry cake ... what one should introduce here is ... intersubjectivity: the crucial feature is that while she was voraciously eating a strawberry cake, the little girl noticed how her parents were deeply satisfied by this spectacle, by seeing her fully enjoying it - so what the fantasy of eating a strawberry cake is really about is her attempt to form an identity (of the one who fully enjoys eating a cake given by the parents) that would satisfy her parents, would make her the object of their desire ...", Žižek, Slavoj. *The Plague of Fantasies*. London: Verso, 2009. 10. Print.

³⁶ "Something similar happens with the prayer wheels of Tibet: I attach a piece of paper with the prayer written on it to the wheel, turn it around mechanically and the wheel is praying for me - as the Stalinists would have put it, 'objectively' I am praying, even if my thoughts are occupied with the most obscene sexual fantasies", Žižek, Slavoj. *How to Read Lacan*. New York: W.W. Norton, 2007. 23. Print.

³⁷ "Every belonging to a society involves a paradoxical point at which the subject is ordered to embrace freely, as the result of his choice, what is anyway imposed on him (we must all love our country, our parents ...)", Žižek, Slavoj. *The Plague of Fantasies*. London: Verso, 2009. 36. Print.

component is crucial, because that is what keeps the game moving along. If (2) is the carrot that operates as signaling community insider knowledge, (3) operates as the stick which eliminates obstacles to reproduction of the rules. The inspecting of the obscene is also how remedies such as analysis, interpretation of symptoms, and the talking cure in general work³⁸. It is **why Žizek, in his descriptions of ideology, must be obscene**. It is how **critique, paradoxically, is action, because it removes the bait from the mouse trap**.

An inherent transgression is a broken rule that must remain hidden or implicit³⁹. Anyone that is part of the community that shares the fantasy will engage in the officially forbidden and obscene content, but will obey the rule not to publicly mention the transgression or risk being excommunicated⁴⁰.

Part of fantasy is staging the original story behind the creation of the law or rules. **The story of primordial loss represents some object that was taken away (i.e. prohibited, as a rule) from us, which we now desire because we lack its presence.**

Real

The Real is the sand that disturbs the smooth workings of the Symbolic and then shows up in the Imaginary. Objects aren't seamlessly captured by our words which is represented in the Symbolic. The attempt to capture meaning leaves a sort of residue or surplus in our language. That surplus pokes through as absurd, unsightly, and disguised representations (i.e. Symptoms) in the Imaginary.

The narrative within our fantasies is what allows us to deal with these gaps or antagonisms. A common example is nationalism, which promises a smooth functioning so long as there is a homogenous group. When the smooth functioning is disturbed (the antagonism), it must be because there is a fracture in the homogeneity (a symptom in the form of an outsider group) that is causing the disturbance.

Interpellation

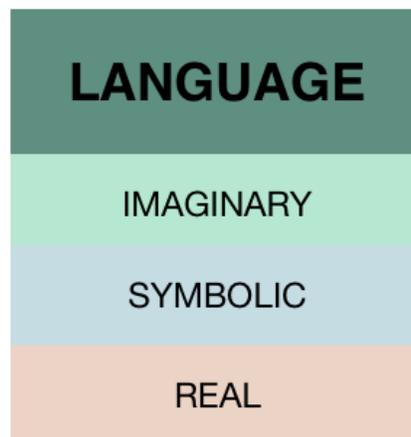
³⁸ "... the function of the analyst's 'passivity' and 'neutrality' is precisely to frustrate the analysand's demand for an interpellation, namely his expectation that the analyst will offer him a point of symbolic identification - in this way, the analyst forces the analysand to confront his own act of presupposing the Other", Žizleek, Slavoj. For They Know Not What They Do: Enjoyment as a Political Factor. London: Verso, 2008. 109. Print.

³⁹ "... Power is always-already its own transgression, if it is to function, it has to rely on a kind of obscene supplement ... this 'eroticization' of power is not a secondary effect of its exertion on its object but its very disavowed foundation, its 'constitutive crime', its founding gesture which has to remain invisible if power is to function normally", Žizleek, Slavoj. The Plague of Fantasies. London: Verso, 2009. 35. Print.

⁴⁰ "... the same goes for the practice of hazing (the ceremonial beating up and humiliating of the US Marines by their elder peers: sticking their medal directly on to their breast skin, etc.): when the public disclosure of these practice ... caused such an outrage, what disturbed the public was not the practice of hazing itself ... but the fact of rendering it public.", Žizleek, Slavoj. The Plague of Fantasies. London: Verso, 2009. 33. Print.

Interpellation is the mechanism by which ideology reproduces itself in society.

Interpellation was coined by Louis Althusser, and given a twist⁴¹ by Slavoj Žižek⁴² in order to better explain how ideology captures us. During the process of interpellation, a mandate, perhaps in the form of a performative, is given to an agent who in turn decides to identify with the mandate. An example of this would be a peasant telling another person “You are my king”, and the person responding “Yes, I am your king”. There are differing levels of identification ranging from a king with imposter syndrome, such as found in Shakespeare’s play ‘King Richard’, to kings that identify so much with the idea of a king to the point that they believe their biology is what determines their royalty.



Part III: Analysis of Language and Language Communities

When we critique the ideology of programming languages we are analyzing the symptoms and fantasies of how those languages are expressed by their communities.

The structure of a programmer’s ideological fantasy within the external ritual with a cynical distance, is explained by Paul Graham within his essay “Beating the Averages”⁴³ with respect to how certain cumbersome languages are preferred by the ‘pointy haired boss’. **The external ritual with the cynical distance is present in our daily, Dilbert-like meetings in which a non-technical manager directs us to use technologies that are optimized for the average programmer but lack real power.** Paul Graham also speculates in “The Hundred-Year

⁴¹ “... in his theory ... Althusser ... never succeeded in thinking out the link between Ideological State Apparatuses and ideological interpellation: how does the Ideological State Apparatus ... ‘internalize itself; ...”, Žižek, Slavoj. *The Sublime Object of Ideology*. London: Verso, 2009. 42. Print.

⁴² “When we recognize ourselves as interpellated, as the addressees of an ideological call, we misrecognize the radical contingency of finding ourselves at the place of interpellation; we fail to notice how our ‘spontaneous’ perception that the Other ... has chosen us as its addressee results from ... we perceive ourselves as chosen, as the addressee of a call because we recognized ourselves in it ...”, Žižek, Slavoj. *For They Know Not What They Do: Enjoyment as a Political Factor*. London: Verso, 2008. pp 108 - 109. Print.

⁴³ “You will have a hard time convincing the pointy-haired boss to let you build things in Lisp, when he has just read in the paper that some other language is poised, like Ada was twenty years ago, to take over the world.”, Graham, Paul. “Beating The Averages.” *Beating the Averages*. N.p., 1 Apr. 2001. Web. 02 June 2017. <<http://www.paulgraham.com/avg.html>>.

Language” about what the one hundred year programming language would be⁴⁴, which very much resembles talk of a universal, specifically a universal language⁴⁵. The strong position against this would be there are no such things as universals, but a more defensible position is that some things that look like universals are really kernels of ideology, such as totalities (e.g. Roman law, German law, and The Law; or Haskell, Lisp, Scala, Java, and The One Hundred Year Language).

Imaginary

Each developer is involved in their own fundamental fantasy with respect to enjoyment⁴⁶.

This fantasy dictates a schema or structure for the programmer, which integrates objects and allows them to become objects of desire. The way this works is **certain programming artifacts become a source of enjoyment to the psychotic, neurotic, or perversion based structures**. These structures influence the pet peeves and preferences of the programmer. For the obsessive, this artifact could be that which promotes obsessive activity (i.e. doing something in order to do nothing). Types, especially the more cumbersome type systems, lend themselves to this kind of activity. This is not to say that types are irrational, but that when the desire to use types goes over and above the desire for safety, and into obsessional activity⁴⁷, that is when it becomes irrational, and ideological. The same can be said for the hysterical desire for refinement, (i.e. the hysteric is plagued by thoughts of ‘this is not that’⁴⁸). The hysteric is rational when trying to capture domain jargon in a concise way, but can overshoot the mark with excessive refinements. Sadistic and masochistic perversions occur when vulgar displays of power, for the purpose of causing anxiety, are exemplified. Excessive short term thinking, to the extent that no communal values and idioms are used, exemplifies psychotic enjoyment.

The ideological story is told from the a certain viewpoint, and in the case of the software developer that viewpoint is one of the technocrat. This is an overseer of good code, and one who probably writes books on the subject. They may also be a benevolent dictators of a software code base, or someone who has received a significant amount of wealth because of

⁴⁴ “What programmers in a hundred years will be looking for, most of all, is a language where you can throw together an unbelievably inefficient version 1 of a program with the least possible effort. At least, that's how we'd describe it in present-day terms. What they'll say is that they want a language that's easy to program in.”, The Hundred-Year Language. N.p., 1 Apr. 2003. Web. 02 June 2017. <<http://www.paulgraham.com/hundred.html>>.

⁴⁵ “The Universal is just a property of particular objects which really exist, but when we are victims of commodity fetishism it appears as if the concrete content of a commodity (its use-value) is an expression of its abstract universality (its exchange-value) - the abstract Universal, the Value, appears as a real Substance which successively incarnates itself in a series of concrete objects.”, Žižek, Slavoj. The Sublime Object of Ideology. London: Verso, 2009. 28. Print.

⁴⁶ “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 obsessional language as if it were a hysterical language. It is important to remember that adopted structures can have traits of one another.”, Watson, W. “The Pervert's Guide to Computer Programming Languages.” (n.d.): n. pag. 01 Jan. 2017. Web. 30 May 2017. <<https://s3-us-west-2.amazonaws.com/vulk-blog/ThePervertsGuidetoComputerProgramming-ThePaper.pdf>>.

⁴⁷ “... whereas the obsessional neurotic builds up a whole system enabling him to postpone the encounter of the object ad infinitum: the moment is never right.”, Žižek, Slavoj. The Sublime Object of Ideology. London: Verso, 2009. 218. Print.

⁴⁸ “To a hysterical neurotic, the object procures too little enjoyment: apropos of every object, his experience is how ‘this is not that’, which is why he hastens to reach, finally, the right object; ...”, Žižek, Slavoj. The Sublime Object of Ideology. London: Verso, 2009. 218. Print.

their software success. **The technocrats are only rockstars because we believe they are, which is interpellation at work.**

Symbolic

Intersubjectivity within the programming community are the external beliefs which take the form of believing in the programming hero's desire. **The alpha nerd or technocrat in the programming community is the one that desires for us.** On the larger scale these are the Martin Fowlers, Paul Grahams, Rich Hickey, Yukihiro Matsumoto, Guido von Rossums, Alan Kays, and Donald Knuths, etc of the world. These people desire, and their desire becomes our desire. When they write a book, it is often sufficient for us to merely have a physical or digital copy of the book, in order for the belief to be ours.

The programming lure is best explained by the principal/agent relationship between programmers and managers, or development teams and customers. There is a tacit agreement between the principal (the one asking for work to be done) and the agent (the worker) about the concepts of documentation, estimates, and worker productivity decisions such as pair programming. We all know (implicitly) that documentation about code is out of date as soon as it is written, estimates are inaccurate as soon as humans adjust for them⁴⁹, and sometimes it's best to share a screen. **But the explicit rule is to document, to estimate, and to be productive on one's own.** Still further, it is obscene to tell a principal (a customer or manager) 'Hey, this estimate is ridiculous, because you will just ask for more features immediately after I give the estimate'. **Extreme programming is an example of a subversive ideological critique, making explicit the obscene and proclaiming the preference of working code over documentation, immediate feedback over estimates, and pair programming.**

Technical debt is the inherent transgression in the programmer's ideology. The programmer has to engage in technical debt in order to fulfill short term goals. This debt may be in the form of minimal/no tests, or code that is not refactored. Even though it is forbidden to publicly announce the technical debt, a certain kind of obscene enjoyment is acquired from creating the debt. **It is as if the pressures that demanded the unrealistic deadline get their comeuppance by way of the debt.** In this way technical debt is stealing a little enjoyment back from the master which was originally stolen from the subject.

⁴⁹ "A more developed definition, one that describes the intrinsic contradiction within an estimate, is that an estimate is a time and resource quantity that accounts for the behavior triggered by the estimate. That is to say that an estimate merely approaches true as it accommodates behavior. Why is this important? If we remember that work fills the amount of time given (either by feature exploration by the principal or architecture exploration by the developer), then the estimate must account for the fact that people will fill up the empty space left open by the estimate, perhaps in a hysterical manner, while they search for the 'right' solution. That is to say that as the deadline approaches, the estimation is retroactively reinterpreted as always having been too aggressive.", Watson, Wavell. "Self Organized Estimation." (n.d.): 5-6. 1 Apr. 2016. Web. 3 June 2017. <<https://s3-us-west-2.amazonaws.com/vulk-blog/SelfOrganizedEstimation.pdf>>.

The search for the primordial loss within software and programming languages is the search for architecture. The architecture, defined as doing things now that are hard to change later⁵⁰, of programming language design, protocol design, and software design have implicit prohibitions (where we have always-already violated the rules) that are pushed back further and further to a hazy point history. In the objected oriented community, the story is that failure is always present because there wasn't a separation of code the way real architects delineate. The best separators, in order of failure and then regression to a more pure form are, Martin Fowler⁵¹, The Gang of Four⁵², Christopher Alexander⁵³, the farmers who never needed an architect because they used a pattern language⁵⁴.

Real

The narrative of the developer's lifestyle is the narrative of the bourgeois programmer.

The bourgeois programmer reproduces themselves by way of communicating their elite programming stack at a shiny startup and asks others to be part of this community. One performative action that initiates interpellation is when a programmer contributes to an elite stack by way of an open source contribution. The contribution, in itself a form of communication, immediately makes the identity true. This person is now an 'X' programmer, a member of 'X' programming community. This narrative is a version of the Protestant ethic⁵⁵ (another ideology), which binds us by stating that if you work hard, you'll be fine. So the bourgeois programmer works hard, possibly through familiarizing themselves with the proper programming language, library, or methods, in order to strike it big by obtaining the early ownership rights of a product. Everything is just fine so long as the right amount of effort is given. Even if this is inefficient, there is no other way ... or so the narrative goes. **The antagonism is the invisible graveyard of failure**, failed startups and uncompensated 80+ hour work weeks at the pay rate of a 40 hour work week, with all the surplus being delivered up the hierarchy⁵⁶. **The perpetual startup programmer is a symptom of the bourgeois**

⁵⁰ "Architecture" is a term that lots of people try to define, with little agreement. There are two common elements: One is the highest-level breakdown of a system into its parts; the other, decisions that are hard to change.', Fowler, Martin (2002-11-05). Patterns of Enterprise Application Architecture (Kindle Locations 350-352). Pearson Education. Kindle Edition.

⁵¹ Fowler, Martin (2002-11-05). Patterns of Enterprise Application Architecture. Pearson Education

⁵² Gamma, Helm, Johnson, and Vlissides. Design Patterns. Addison-Wesley, 1995.

⁵³ Alexander, Christopher. The Timeless Way of Building. New York: Oxford UP, 1980. Print.

⁵⁴ "Without the help of architects or planners, if you are working in the timeless way, a town will grow under your hands, as steady as the flowers in your garden.", Alexander, Christopher. The Timeless Way of Building. New York: Oxford UP, 1980. 8. Print.

⁵⁵ "The capitalist economic order needs this uncompromising devotion to the 'vocation' of moneymaking. It is an attitude to outward possessions which is so appropriate to the economic structure, and is so very closely linked with the prerequisites for success in the economic struggle for existence, that there can no longer be any question today for a necessary connection between that chrematistic conduct of life and any one uniform philosophy of life. Indeed, those who take this attitude no longer find it necessary to rely on the approval of any religious powers and regard this influence exerted on economic life by the norms of the Church, to the extent that this influence still makes itself felt, to be just as much of a hinderance as regulation by the state.", Weber, Max, Peter R. Baehr, and Gordon C. Wells. The Protestant Ethic and the "spirit" of Capitalism and Other Writings. New York: Penguin, 2012. 24. Print.

⁵⁶ "A hierarchy of ownership emerges when there is a pecking order of people who have the right to exclude those below them. Hierarchies in ownership can be incentives for people on the bottom (If I work hard and/or gain favoritism, I can increase in ownership) or for the top (nepotism or cronyism combined with reciprocation strategy). Inasmuch as ascending the hierarchy of ownership is a mere appearance, the hierarchy is a lure.", Watson, Wavell. Harvestocracy. N.p.: n.p., n.d. 3 Feb. 2016. Web. 3 June 2017. <<https://s3-us-west-2.amazonaws.com/vulk-blog/Harvestocracy.pdf>>.

programmer's narrative, but is integrated by the Protestant ethic: those who lose just didn't work hard enough, so they were never in the game in the first place.

Conclusion

Programming language ideology is a complex subject but can be made simpler with frameworks specifically designed for ideology. The life, rationale, and motives behind a programming language and its community cannot be examined outside of the people that use it. The irrational component of people that use programming languages cannot be examined without examining their symptoms and fantasies. **The prevalent programming language ideology facilitates the desire for the continuous search for the 'best tool for the job' (or general programming language), which includes uncompensated self training, research, and risks, by sustaining the search with a grandiose vision of the developer becoming the benevolent technocrat.** The programmer's choice of language and community will be structured by their subject position within this greater fantasy. The best tool for the job ends up being the fetishistic object that causes enjoyment and sustains the community by remaining just out of reach.