# lon li lon lon lon lon

Anti-Realism, Subjectivism, and Truth in toki pona 09.08.2025

soweli suli Alu pi ko lete (Jonathan Tan Jiayi)

1 Introduction

Who am I? 3 / 122

- Haru / soweli suli Alu pi ko lete¹
- Singaporean Math/Philosophy student
- Main interests:
  - Logic
  - Epistemology
  - Philosophy of language
  - Logical metaphysics
  - Ontology of objects



soweli suli pi ko lete²

<sup>&</sup>lt;sup>1</sup>For official purposes, also "Jonathan Tan Jiayi"

<sup>&</sup>lt;sup>2</sup>From *The Snow Leopard*, by Haseebamjad88, 2015, Wikimedia Commons. CC BY-SA 3.0

Contact 4/122

If you wish to contact me, you may do so via:

• Discord: @shouharuka

• E-mail: jonathantanatlol (at) gmail.com

My timezone is UTC+8

#### **About This Presentation**

- Mostly English, with **definitions** in toki pona
- Not definitive
- Disagreements are welcome!
- Thought-provoking, not comprehensive
  - Much else to be explored
  - More emphasis on introducing questions
- Given from a toki ponan angle

#### Definition

sina sona ala e ijo la mi pana ni e sona tawa sina: mi pana e lipu pi sitelen Lasina lipu li toki pona e ijo ni

#### **Presentation Outline**

- 1. Introduction
- 2. Realism in toki pona
  - How does language have *meaning*? Is there a one true meaning?
- 3. Truth in toki pona
  - What is *truth*? How is truth portrayed in language?
- 4. Knowledge in toki pona
  - Does how we *know* affect communication?
- 5. Conclusion

2 Realism in toki pona

#### Realism and Anti-Realism

- **Realism** is about objectivity
  - Objectively true facts
  - Objectively moral actions
  - Objectively correct interpretations
- Features are *inherent* and *discovered* 
  - truth, value, morality, meaning, etc.

#### Realism

ijo li lon ilo ante li lon ala lon ijo li insa ona jan li lukin ala la ijo li ken lon li ken lon ala jan li sona e lon ijo la sona ona li tan ni:

ijo li pana e sona ni tawa ona jan li pana ala e lon tawa ijo jan ala la ijo li lon li lon ala

### Realism and Anti-Realism (ii)

- Anti-realism rejects this
- *Variety* of realisations
  - Objectivity cannot exist
  - Features only exist when recognised
  - Features not inherent but subjective

#### Realism<sup>3</sup>

ijo li lon ilo ante li lon ala lon ijo li insa ona jan li lukin ala la ijo li ken lon li ken lon ala jan li sona e lon ijo la sona ona li tan ni:

ijo li pana e sona ni tawa ona jan li pana ala e lon tawa ijo jan ala la ijo li lon li lon ala

<sup>&</sup>lt;sup>3</sup>Definition shown again for reference

### **Syntactic Realism**

- Is **syntax** objective?
- Do sentences have *objectively* correct structure?
- How do we explain grammatical tendencies?
- How do people *parse* sentences differently?
- How do people *construct* sentences differently?
- Who is *right* and who is *wrong*?

#### **Syntax**

nasin nimi li ni:

nimi seme li nanpa wan li nanpa tu?

toki li kulupu seme e nimi?

kulupu seme li poka kulupu seme?

poka ni li toki e seme?

### Preliminaries: Grammar and Parsing

- **Grammar** answers the following questions:
  - ▶ How is language *structured*?
  - ► How do speakers *use* or *think about* language?
  - How are sentences different from random sequences of letters or sounds?

#### Grammar

nasin ala la

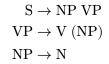
mi ken kalama mute mi ken sitelen mute taso ala li ken sona e kalama mi e sitelen mi kalama mi en sitelen mi li toki ala

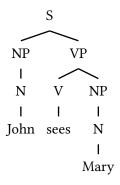
mi wile ala e ni la

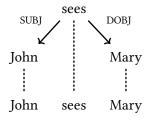
mi o kalama o sitelen kepeken nasin seme? nasin ni li nasin toki a

# Preliminaries: Grammar and Parsing (ii)

- Grammar can be analysed in several ways
  - Constituency, dependency, function, etc.
- Split sentences into parts
- Determine how parts relate to one another
- Identify how relations affect structure







## Preliminaries: Grammar and Parsing (iii)

- **Parsing** is the *process* of analysing sentences
- Grammar informs how sentences break into parts
- Allows us to understand sentences
  - Understand the grouping of parts
  - Understand the relationship between parts

#### Parsing

mi lukin e lipu
toki la nimi lipu li nasin tawa mi
mi ken sona e lipu tan ni:
mi sona e nasin toki
mi sona e nasin pi toki lipu kin
ni li nasin sona

### **Preliminaries: Scope**

- One consideration during parsing is **scope**
- The parts related to a part are its *scope* 
  - A part's scope includes itself
- Scope is determined by grammar

Rojas and Mei saw a duck scope of "and"

He is not a good person

scope of "not"

I have not seen a red duck before scope of "red"

<sup>&</sup>lt;sup>4</sup>The relation varies depending on the grammar and context, like dependency, quantification, etc.

# **Syntactic Ambiguity**

Consider this sentence:

Flying planes can be dangerous.

Noam Chomsky

How do *you* parse this? Are there other ways to parse this?

### Syntactic Ambiguity (ii)

#### **Version One**

[Flying planes] can be dangerous

"Flying" is a descriptor.

"Planes" are what "flying" is describing.

These planes can be dangerous.

#### **Version Two**

[Flying] [planes] can be dangerous

"Flying" is an action.

"Planes" are what "flying" is being done to.

This action can be dangerous.

# **Scope Ambiguity**

Scope can cause (syntactic) ambiguities too:

All that glitters is not gold.

- Unknown

Bertrand Russell commented that this proverb is ambiguous. How so?

### **Scope Ambiguity (ii)**

#### **Version One**

#### All that glitters is not gold

scope of "not"

"Not" negates "all that glitters is gold".

It is not that everything that glitters must be gold.

#### **Version Two**

All that glitters is not gold

scope of "not"

"Not" negates "gold".

Everything that glitters cannot be gold.

#### What about these sentences?

- I saw the person who he was talking with | ... with whom he was talking
- If I was a billionaire I would buy my cat a house | If I were a billionaire ...
- He couldn't lift up the weight | He couldn't lift the weight up

### **Grammar Shift (ii)**

- Which ones feel *natural* to say to you?
- Which ones feel *correct* to you?
- *Grammar* has changed over time
- People's usage has changed over time
- Previous analyses of grammar may not hold true today

### The Role of Syntax in toki pona

- Which ones are right?
- Is there a more correct reading?
  - "The reading that the speaker/author intended"
  - "The reading that is the most conventional"
  - "The reading that is the most true"
- Is there a *more correct construction*?
  - "The construction that follows the rules of grammar"

# The Role of Syntax in toki pona (ii)

- "toki pona is prone to syntactic ambiguity"
- Phrases can often take on many roles
  - Exacerbated by minimalist design
- · Roles can change depending on parsing
- Phrase boundaries can be less clear

- (a) jan li alasa e olin lon tomo person IND search ACC love real home A person looks for true, familial love
- (b) jan li alasa e olin lon tomo person IND search ACC love LOC home A person looks for true love at home

# The Role of Syntax in toki pona (iii)

- Is syntactic ambiguity bad?
- Syntactic realism suggests there is a correct way to parse and construct
  - ▶ Is it the *speaker's* job to form sentences without syntactic ambiguities?
  - ▶ Is it the *listener*'s job to resolve ambiguities?
  - Whose fault is it?
  - Are these *always* possible to do anyway?

# The Role of Syntax in toki pona (iv)

- If it is "harder" to avoid syntactic ambiguities;
- If one must decide between "more" syntactic ambiguities;
- Is that a "bad language"?
- Is a "good language" one without syntactic ambiguities?

# The Role of Syntax in toki pona (v)

**Consider**: natural languages are often rife with syntactic ambiguities.

#### **Principle of Least Effort (PLE)**:

- Speakers don't want to work harder than necessary
- Use evolves to require less effort for understanding
- Syntactic ambiguities survive or often increase<sup>5</sup>

#### Principle of Least Effort (PLE)

mi o pali taso mi wile ala pali wawa a ni la mi pali pi lili mute tawa ni: pali li kama pini pona pali li wile ala e wawa suli tawa mi

<sup>&</sup>lt;sup>5</sup>(Piantadosi et al., 2012; Zipf, 1949)

# The Role of Syntax in toki pona (vi)

- Speakers of languages are communicating just fine
- PLE operates contingent on maintained understanding
- Are we justified in calling languages "bad" in spite of this?
  - Should we change how we think about language? (more later)
- Can the same be said for toki pona, a *constructed language*?
  - Following syntax patterns out of convention or because it is sufficient?
  - Has toki pona's syntax evolved beyond an arbitrary rule set?

## The Role of Syntax in toki pona (vii)

- On *grammar shift* and evolution of use:
  - Can there be a *realist* grammar amidst grammar shift?
  - ▶ **Response**: hold realism of *cross-linguistic patterns / structures* of grammar instead<sup>6</sup>
    - Innate to language / cognition that grammar conforms to patterns?
  - ► To what extent do *contructed languages* conform to this realism?
- Do constructed languages even have grammar shift?
  - ▶ Does being *constructed* necessitate syntactic realism?

<sup>&</sup>lt;sup>6</sup>See Nefdt (2021) for elaboration on this response

#### Semantic Realism

- Is **semantics** objective?
- Where does the *meaning* of language come from?
  - ▶ Do we give meaning to language?
  - ▶ Is the meaning *inherent* to language?
- What is the nature of *interpretation*?

#### **Semantics**

toki la nimi en kulupu nimi li lon li nasin ona li ken toki tan nasin taso ona li toki e ijo seme a? ijo ni li kon toki kon ala la ona li toki e ala a

### Realist and Anti-Realist Meaning

- **Realist** theories of meaning:
  - Claim that language has objective meaning
  - Truth-Conditional Semantics (on declarative statements)<sup>7</sup>:
    - Meaning is whether or not a sentence is *true*
    - *Inherent* based on the state of the world
    - But how do we *know* what is true or not?
    - What if we *cannot know* it is true?

#### **Truth-Conditional Semantics**

nasin lon la ijo li pakala taso mi ken toki e ni: ijo ni li pakala ala a nasin lon la toki mi li pakala ni la toki li pakala anu pakala ala toki li pakala ala pakala ni li kon toki

<sup>&</sup>lt;sup>7</sup>Attributing **TCS** to semantic realism was made prominent by Dummett

# Realist and Anti-Realist Meaning (ii)

- **Realist** theories of meaning:
  - Grice's expression-meaning (on declarative statements):
    - Meaning is based on consensus
    - X means Y iff people generally use X that way
    - What about sentences *nobody* has used before?
    - How do you decide if people generally do?

#### **Expression-meaning**

jan li toki e ijo kepeken kulupu nimi jan ale li toki sama e ijo sama la kon pi kulupu nimi li ijo ni kon pi kulupu nimi ale li sama

ni li kon toki

# Realist and Anti-Realist Meaning (iii)

- **Realist** theories of meaning:
  - "... use X that way"?
  - Grice's speaker-meaning (on declarative statements):
    - Meaning is based on intention
    - X said so audience understands it to mean Y
    - Contingent on audience *knowing* the intention
    - Is this then restricted by convention? *Circular*?

#### Speaker-meaning

mi wile ni: sina kama sona e ijo mi toki tan ni sina kute sina sona e wile mi ni la sina kama sona e ijo ni kon toki li ijo pi wile mi

# Realist and Anti-Realist Meaning (iv)

- Anti-realist theories of meaning:
  - Claim that language does not have objective meaning
  - Claim meaning varies with:
    - Context
    - Interpretation
    - Thoughts, etc.
- I'll focus on a **subjectivist** take on the latter two claims

## **Subjectivist Theories of Meaning**

- **Subjectivism** (applied to language):
  - No *objective* meaning
  - Meaning is what we perceive it to be
  - ► The *only* meaning we know of is ours

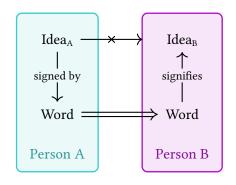
#### Subjectivism

kon toki li wan ala kon toki mi li pilin mi tawa kon toki kon toki mi en kon toki sina li ken ante mi ken ala sona e kon toki sina mi ken sona e kon toki mi taso kon toki li kon toki ala

### Subjectivist Theories of Meaning (ii)

#### · Locke's Idea:

- Language is to communicate thought
- ▶ Thoughts are made of *Ideas*<sup>8</sup>
- ▶ Ideas are a *subjective* representation of things
- One's Ideas cannot be perceived by another
- Words are arbitrary signs for Ideas
- Words have no intrinsic meaning



<sup>&</sup>lt;sup>8</sup>*Idea* is capitalised here to distinguish it as a technical term

# Subjectivist Theories of Meaning (iii)

- Are there issues with treating words as *atomic*?
- How does *communication* work then?
- **Consider**: if genuine communication requires *knowledge* of what the speaker means,
  - ▶ How is this possible if Ideas cannot be perceived by others?
  - ▶ How does one *know* the signification of words if they are arbitrary?

# **Subjectivist Theories of Meaning (iv)**

#### • Quine and Davidson's Radical Interpretation9:

- Exposed to a *foreign* use of language
  - No immediate understanding
- Understanding developed by observing use
- Eventually develops a *personal* understanding
  - Collection of "best guesses" refined over time
- Quine argues all understanding is like this

#### **Radical Interpretation**

sina toki taso mi sona ala e sina sina awen toki mi kute mi ken kama sona mi e toki sina tan ni: tenpo ni la sina wile toki sina toki ni la mi sona e ni: sina toki e tenpo ni sina toki sama lon tenpo ante mi alasa e ni: seme li sama lon tenpo tu? mi pilin e ni: sina toki e ni a ni li sona mi

<sup>&</sup>lt;sup>9</sup>Quine's version of this is Radical Translation, but the presentation as interpretations is more relevant here

# Subjectivist Theories of Meaning (v)

#### Recognise the underlying assumptions:

- Sentences said are not said purposelessly
- Sentences said are reasonable for the circumstances
- **Principle of Charity** (for language):
  - Presume the above when interpreting someone
  - ▶ Is this principle *reasonable*?

### **Principle of Charity**

mi alasa kama sona e toki sina la sina toki lon tenpo ni la sina toki e tenpo ni anu seme? mi sona ala taso mi alasa kama sona sama ni: mi sona

### The Role of Interpretation in toki pona

#### I argue:

- toki pona begins with the assumption that language has no objective meaning
  - ▶ toki pona is anti-realist *by nature*
  - Attempting to fix meaning of finitely many words is *unfeasible*
- toki pona is *facilitated* by **Radical Interpretation** 
  - Function as a language depends on the Principle of Charity
  - Lack of intention of relevance is *incoherent* in toki pona

## The Role of Interpretation in toki pona (ii)

Claim: toki pona is anti-realist by nature

- toki pona establishes that words are signs for subjective "semantic spaces"
  - Semantic spaces function as collections of Ideas that words can signify
  - One's semantic spaces, like Ideas, cannot be perceived by others
- toki pona establishes that the usage of words is arbitrary
  - ► "This is the way **I use** Toki Pona" pu Preface<sup>10</sup>

<sup>10 (</sup>Lang, 2014)

## The Role of Interpretation in toki pona (iii)

Claim: attempting to fix meaning of finitely many (toki ponan) words is unfeasible<sup>11</sup>

- Assume each word has fixed meaning
- Assume each way words can be composed has fixed meaning
- There are concepts no composition of words (=sentence) means
- The speaker must use a sentence *outside* of its fixed meaning
  - ▶ More evident the less words and ways of composition there are
  - Consider: new learners referring to nimi.li/linku often fail to understand sentences

<sup>&</sup>lt;sup>11</sup>This argument is given reductively for simplicity

## The Role of Interpretation in toki pona (iv)

Corollary: toki pona assumes language has no objective meaning

- It follows that toki pona must *reject* the assumptions
  - For a less minimalist language the effect can be negligible
- To be functional, toki pona must allow *novel* use of language
  - ▶ Speakers are allowed to decide a sentence can express new concepts
  - Listeners are allowed to interpret new meanings for sentences

## The Role of Interpretation in toki pona (v)

#### **Claim**: toki pona is *facilitated* by **Radical Interpretation**

- How do speakers know what sentences mean without objective definitions?
- Speakers are exposed to and *radically interpret* novel uses of sentences
- Speakers can verify that their interpretations are *functionally sufficient* over time
- Speakers can produce sentences based on prior interpretations
- toki pona's communicative ability *depends on* the viability of Radical Interpretation

## The Role of Interpretation in toki pona (vi)

### Corollary: toki pona's function depends on the Principle of Charity

- Novel uses of sentences are charitably interpreted
  - ▶ The speaker does not immediately understand the usage
  - Searches for connections between the context and the usage
  - ▶ If there is none, there is *no understanding gained*
- **Recall**: novel use of language *must* be allowed
  - ▶ They *must* be able to be charitably interpreted

## The Role of Interpretation in toki pona (vii)

**Corollary**: lack of intention of relevance is *incoherent* in toki pona

- A sentence *inappropriate for the context* is said
- Trivially, it is a novel use of language
  - It is "being used to mean something" in an unfamiliar way
- It cannot be charitably interpreted
- It cannot be understood
- Compare: non sequitur in other languages can often still be understood

### Linguistic Prescriptivism

- Linguistic Prescriptivism:
  - Establishment of rules of language
  - Aims to establish a standard language
- Is this *realist*?
- How does this affect languages?
- Is this present in toki pona?

#### Linguistic Prescriptivism

nasin toki li lon kulupu mi toki e ni: nasin ante ale li nasa

sina wile toki nasin la

sina o toki kepeken nasin ni

# Linguistic Prescriptivism (ii)

- Examples:
  - Dictionaries (e.g. Middle English → Early Modern English)
  - Language regulators (e.g. l'Académie Française)
  - ► Style guides (e.g. "No conjuctions at the start of sentences")
  - ► Language reform (e.g. Chinese Character Simplification Schemes)

## Linguistic Prescriptivism (iii)

- **Recall** the earlier objection to Locke's Ideas
  - ▶ "How does one *know* the signification of words if they are arbitrary?"
- Prescriptivism aims to address this by establishing *independent rules of language* 
  - ▶ Represents a linguistic community's rules
  - *Sociolinguistics*: which linguistic community?
- Meaning is whether one's rule-following meets others' expectations<sup>12</sup>
  - ▶ Can be construed to be realist should it?

<sup>&</sup>lt;sup>12</sup>This is one solution by Kripke (1982) for Wittgenstein's Rule-Following Paradox from having "rules of language"

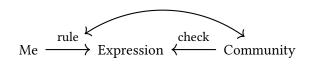
# Linguistic Prescriptivism (iv)

#### • Broadening the definition:

- Prescriptivism is *preference* for a linguistic community's rules *over individuality* 
  - Important to note the sociolinguistic precedence for what kind
- Communities can hold expectations for rule-following without formal establishment
- toki ponan resources do not present themselves as definitive;
- Does that mean there is no prescriptivism in toki pona communities?
  - nasin pi jan mute / nasin kulupu?

### **Conventional Expression and Individual Expression**

- If communication relies on my rule-following,
  - ► My use of language is merely by convention<sup>13</sup>
  - ▶ Does this *preclude* self-expression?
- To what extent does this apply to toki pona?

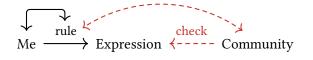


<sup>&</sup>lt;sup>13</sup>This is argued by Wittgenstein (1953), according to Kripke (1982)

## Conventional Expression and Individual Expression (ii)

#### Conversely,

- Is my individual use of language futile?14
  - ▶ It will only ever mean what a community says
  - Not understood by others without rule-following



<sup>&</sup>lt;sup>14</sup>Likewise, Kripke (1982) argues yes in his reading of Wittgenstein (1953) and his Private Language Argument

## Conventional Expression and Individual Expression (iii)

I argue for minimalist languages like toki pona<sup>15</sup>:

- Communication is *unfeasible* without *individual* expression
- The *expectation* is individual expression
  - Community meaning is *built on* individual meaning
- The separation of conventional and individual use is exaggerated

<sup>&</sup>lt;sup>15</sup>This delimitation of scope is important as the following argument is weaker for the general case

## Conventional Expression and Individual Expression (iv)

**Proposition**: A community cannot cohesively expect what they do not know of

- For a maximalist language, Kripke's solution can be satisfactory
  - Novel concepts are much closer to familiar concepts
  - A community could reasonably come to hold similar expectations around it
- Consider a language with only the words: "leopard" and "tiger"
  - Could that community *reliably* expect how members would describe a cloud?
- The same *cannot* be said about a minimalist language

## Conventional Expression and Individual Expression (v)

**Claim**: communication is *unfeasible* without *individual expression* 

- **Sub-claim**: novel usage is *necessarily* individual expression
  - ► By hypothesis, the usage is new to the language (=community¹6)
  - Commitment to this usage is ultimately a personal judgement of suitability
    - By the proposition, the community cannot evaluate this usage
- Recall: minimalist languages must permit novel usage
- Minimalist languages must permit individual expression

<sup>&</sup>lt;sup>16</sup>The earlier arguments define speaking a language to be conforming to a community's expectations

## Conventional Expression and Individual Expression (vi)

**Claim**: the *expectation* is individual expression

- If novel usage must be in language and language is conformity to expectation,
- By the proposition, expectation *cannot* be on usage
- Cannot expect expression  $\rightarrow$  expect expression *type*
- Expectation is that one *would* individually express
  - Expecting conventional expression would be *circular*

# Conventional Expression and Individual Expression (vii)

**Corollary**: community meaning is *built on* individual meaning

- If meaning is given by community practices, and
- The community practice is individual expression,
- Each individual's expression is a valid meaning<sup>17</sup>
  - (Within that community)

<sup>&</sup>lt;sup>17</sup>Note the difference between this and Grice's speaker-meaning

## Conventional Expression and Individual Expression (viii)

**Corollary**: the separation of *conventional* and *individual* use is *exaggerated* 

- It follows that conventional and individual use is *not disjoint*
- · No strong reason to hold the two in different regard
- It is antithetic to condemn individual expression

## Conventional Expression and Individual Expression (ix)

- The strictly conventional view makes language contractual
  - ► The speakers have a "job" to follow rules to meet expectations
  - ▶ The listeners have a "job" to evaluate statements according to rules
- Recall that this thinking can lead to judgements about "bad" languages
  - A language is "bad" if it is "hard to do your job"

## Conventional Expression and Individual Expression (x)

- Minimalist languages like toki pona are themselves an argument against this
- **Recall** the *nature* of minimalist languages and their implications
- What are some implications for how we teach toki pona?
- The traditional view is reasonable for maximalist languages, and popular;
- How might we better understand the difficulty new learners face?

### On nimisin and nasin nasa

- If community meaning is built on individual meaning,
- It seems like it opens up the objection to Locke again!
- Recall: the community's expectation is individual expression
  - **Recall**: individual expression is a personal judgement that an expression is suitable
  - Expectation is to say what is personally *reasonable for the circumstances*

### On nimisin and nasin nasa (ii)

- This expecation is a stronger version of the **Principle of Charity**!<sup>18</sup>
- Following expectations enables communication by **Radical Interpretation**
- If speaking toki pona entails conforming to toki ponan expectations,
- This justifies the assumption of our earlier claims about toki pona

<sup>&</sup>lt;sup>18</sup>Stronger because it requires not only that it is reasonable but that the speaker explicitly believes it to be so

### On nimisin and nasin nasa (iii)

- How does this affect *teaching*?
- We often tell new learners to avoid *nimisin* and *nasin nasa*
- Many justify this in relation to rarity of use or idiosyncrasy
  - Is this prescriptivism?
- We then say that advanced speakers can experiment with it19
- But is there a concrete difference?

<sup>&</sup>lt;sup>19</sup>Although some disavow it as a whole

### On nimisin and nasin nasa (iv)

- · Aside from speakers who do not intend to be understood,
- I argue that the difference is:
  - ▶ New learners' use *fails* to actually be individual expression
  - Advanced speakers' use is actually individual expression
- The *subversion of individual expression* leads to poor comprehensibility,
- Not necessarily rarity alone

### On nimisin and nasin nasa (v)

- New learners use *nasin nasa* and *nimisin* when:
  - ► They follow *outside conventions*; equivalently,
    - E.g. calquing grammatical forms
  - They think toki pona requires conventions
    - E.g. basing word use on definitions
- Their usage is a result of blindly following,<sup>20</sup> not individual expression

- (a) Calquing grammatical forms mi tawa wawa e ilo mi
  - (Eng.) I am going to charge my device
  - (Alt.) mi wawa e ilo mi (lon tenpo poka)
- (b) Word usage from definitions mi pake e sina
  - (Eng.) I block you
  - (Alt.) mi pini e tawa sina

<sup>&</sup>lt;sup>20</sup>As Wittgenstein (1953) puts it

### On nimisin and nasin nasa (vi)

- When advanced speakers use them,
  - ▶ They *are not* blindly following
  - ► They *personally believe* it to be appropriate
    - E.g. there is no other word suitable to express
  - ► Not *because of* conventions
- Radical Interpretation is therefore still possible

### On nimisin and nasin nasa (vii)

#### Case Study: isipin<sup>21</sup>

- Introduced by *ko* in 2020
- ko & sowepipi Olipija's justification:<sup>22</sup>
  - ▶ On the difference between *toki/sona/pilin/isipin*
  - On the basis of the metaphysics of thought
  - Captures uncertainty removed from emotionality
  - Personal belief reflected in use



Introduction of *isipin* (with author permission)

<sup>&</sup>lt;sup>21</sup>My summary is unlikely to do justice; I encourage you to read the original discussion in sona-musi

<sup>&</sup>lt;sup>22</sup>(ko, 2021; 2022)

### **Pedagogical Takeaways**

- Still justified in cautioning new learners, but
  - Emphasise developing a sense of *personal belief* in expressions
  - Encourage personal expression over conventional following
  - ▶ That can take time to develop, so caution is warranted
- Take care not to be *prescriptivist* about toki pona
  - Personally feeling such use is not justified is good!
  - *Preference* for common use over *individual expression* can be problematic

3 Truth in toki pona

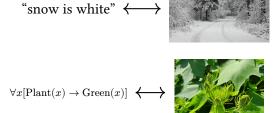
Truth 68 / 122

- What is *truth*?
- Multiple theories of truth
  - Many historical debates
  - Modern discussions have centered on a few kinds that I cover here
- Is truth a *property*?
- Is truth even a *something* of its own right?

### **Correspondence Theory**

#### Correspondence Theory of Truth:

- ► Something is *true* if it corresponds to a fact<sup>23</sup>
  - Broadly, if there is a relation to reality
- "Fact" is an element of reality
- If snow is white in reality,
- "Snow is white" corresponds to that and is true



**Truth-bearers** 

Reality

<sup>&</sup>lt;sup>23</sup>This version was made popular by Russell (1912/1971) and Moore (1910-11/1953); there are many versions

Coherentism 70 / 122

#### • Coherence Theory of Truth:

- ▶ Appeals to a *nature* of truth
- If a system is consistent,
- ▶ It "coheres", and it is true
  - By virtue of that being truth's nature
- Determine truth by standards of coherence

#### **Coherence Theory of Truth**

mi toki e ijo mute ijo mute ni li kulupu toki toki li ken utala ni e toki ante:
toki li toki e ni: toki ante li pakala toki tu ale li utala ala lon kulupu toki kulupu toki ni li utala ala li lon kulupu toki la toki li utala ala la ona li lon

### Pragmaticism

#### Pragmatist Theory of Truth:

- Founded on inquiry and practice
- Extremely wide range of views
- We should be free to label things as true
  - Some argue that this is the best we can do
  - Truth can be evaluated against *usefulness*

#### **Pragmatist Theory of Truth**

mi alasa mi pali alasa la mi alasa e ijo pona pali la ijo pona li pona ni: mi ken pali tan ona ijo li pona ni la ona li lon Pluralism 72 / 122

#### Pluralism about truth:

- ▶ There are *different ways* of being true
- ▶ They can vary depending on the *context* 
  - E.g. mathematical and moral truth
- Argues against Monism, that there is one way

#### Pluralism about truth

nasin lon li pana e sona ni: seme li lon? nasin lon li nasin wan ala li nasin mute a nasin lon ale li nasin lon toki ante

#### Nihilism and Deflationism

- Nihilism about truth (alethic nihilism):
  - A few presentations
    - There is no such thing as "being true"24
    - Nothing is true<sup>25</sup>
  - Definitions of truth lead to paradoxes,
  - So there are no consistent definitions

#### Nihilism about truth

nasin lon ale li nasin ala ala li lon

<sup>&</sup>lt;sup>24</sup>(Glanzberg, 2018)

<sup>&</sup>lt;sup>25</sup>(Gamester, 2023; Liggins, 2024)

# Nihilism and Deflationism (ii)

#### Deflationism about truth:

- No nature of truth to develop theories of
- ► Truth is merely *expressive*
- All that can be said is of its *linguistic* purpose
- Argues against Inflationism
- Overlap with Nihilism; not necessarily identical<sup>26</sup>

#### **Deflationism about truth**

lon li nasin ala lon li toki li pona tawa toki

<sup>&</sup>lt;sup>26</sup>Some argue that Deflationists should be Nihilists (Gamester, 2023)

#### **Realism About Truth**

**Assume**: sentences are the *primary truth-bearers*<sup>27</sup>

- Note: this is not necessarily Truth-Conditional Semantics
  - ▶ Not assuming that meaning is *reducible* to truth-conditions;
  - ► Saying sentences are the *main* things that can have truth values
  - "Main": other truth-bearers can be explained in terms of it

<sup>&</sup>lt;sup>27</sup>For ease of exposition; I encourage you to think about arguments for other truth-bearers

#### Realism About Truth (ii)

- Is there *realism* about truth?
- Let's refine our definition of realism:28
  - **1.** The world *exists objectively, independent* of conception
  - 2. Our claims are about that world

<sup>&</sup>lt;sup>28</sup>Edited from Wright (2010)

# Realism About Truth (iii)

- By this definition, our claims should be *objectively* true or false
- Supported by correspondence theories of truth<sup>29</sup>
  - Objective relations that determine the truth of sentences about the world
- Equivalently, every sentence must *either* be true *or* false (=bivalence)<sup>30</sup>

<sup>&</sup>lt;sup>29</sup>(Glanzberg, 2025)

<sup>&</sup>lt;sup>30</sup>(Dummett, 1993)

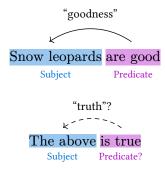
#### **Talking About Truth**

Let's focus on one particular aspect about truth:

- What is the purpose of *truth-talk*?
  - Languages have expressions for truth (=alethic locutions)
  - What do usages of these expressions actually say?

#### **Talking About Truth (ii)**

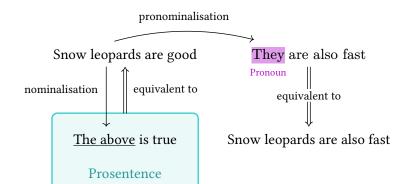
- Are expressions for truth **genuine predicates**?
  - "are good" asserts "goodness" of "snow leopards"
    - "are good" expresses a property<sup>31</sup>
    - "are good" is a genuine predicate
  - Can the same be said for "is true"?
- Necessarily so in inflationist theories of truth



<sup>&</sup>lt;sup>31</sup>Some differentiate substantive properties from insubstantive properties; for ease of exposition, we will not

#### **Talking About Truth (iii)**

- Some argue that "is true" is *not* a predicate
  - ▶ Forms prosentences<sup>32</sup>
  - Otherwise has no additional significance



<sup>&</sup>lt;sup>32</sup>Prosententialism is a kind of deflationism, but not all deflationists are prosententialists

# **Talking About Truth (iv)**

If "is true" expresses a property, what is it?

- Compare:33
  - "Water is essential for life" is true
  - "Sonja Lang is a conlanger" is true
- What *property* do the sentences share?
  - "They share a property of truth"?

<sup>&</sup>lt;sup>33</sup>Argument edited from Armour-Garb et al. (2023)

#### **Talking About Truth (v)**

#### Consider:

- ▶ When we say things share a property of "greenness"
- We are saying *more* than just "they are all green"
- We appeal to an *underlying common nature* between them
  - i.e. they all reflect light with a wavelength between some range
- What is the *underlying common nature* of things that are true?

#### Truth in toki pona

- What can be said about truth-talk in toki pona?
- What would be the equivalent in toki pona? "lon"?
  - "lon" is very commonly associated with truth,
  - ▶ But arguably not in the same way as natural languages<sup>34</sup>
  - What's the difference?
- How do people use "lon"?

<sup>&</sup>lt;sup>34</sup>For this reason, I will be referring to "*lon*" in place of "truth" in further discussion to honour that "*lon*" might not necessarily be equivalent to "truth"

# Truth in toki pona (ii)

- Taken as an alethic locution, "lon" is unique:
  - ► For almost all speakers, "lon" is also a preposition<sup>35</sup>
  - ► Speakers use "lon" to express a *very wide* range of concepts
- How do these differences affect its function in *lon-talk*?

<sup>&</sup>lt;sup>35</sup>Note: when commenting about how common an expression is, I am doing so purely descriptively

# Truth in toki pona (iii)

- Prepositional usage:
  - ► For many, "lon" is a preposition of location
  - "X li lon Y" affirms X's location in relation to Y
- As such, many also use "lon" to talk about existance and reality

#### Truth in toki pona (iv)

- Can be argued that this leads to an *underlying common nature*:
  - Something is lon if it refers to something somewhere in reality
    - Correspondence theory of *lon*!
  - Represented by the schema:
    - "ijo li lon ijo ante la mi ken toki e ni lon tenpo ale: ona li lon.

      ijo li lon ala ijo ante la mi ken ala toki e ni lon tenpo ale: ona li lon."<sup>36</sup>
  - ▶ Suggests that "X li lon" is a genuine predicate that expresses a property

<sup>&</sup>lt;sup>36</sup>Originally, I sent a poll regarding schemata similar to this, but the schemata in the poll were not true biconditionals

# Truth in toki pona (v)

- Aside: it is worth investigating if this interpretation of "lon" is realist
- Accepting that "lon" expresses the property as described earlier,
- It may be possible that "X li lon Y" where Y is an element of conception
  - Goes against at least one of the two statements

# Truth in toki pona (vi)

- However, "lon" is often used for simple agreement as well
  - ▶ E.g. "(ni li) lon (a)", the "lon" emote online
- Our correspondance theory may be saying too much
  - *lon* but not a reference to something somewhere in reality?

# Truth in toki pona (vii)

- Two possible responses:
  - ► This usage is explained by **Pragmaticism** 
    - Property expressed is a judgement of usefulness or sufficiency
    - Statements are labeled as *lon* accordingly
    - Counterpoint: "lon" as a discourse marker / back-channelling

# Truth in toki pona (viii)

- Two possible responses:
  - ► This usage is explained by **Deflationism** 
    - The speaker is affirming the statement *through its reference* 
      - Just how "lon" functions, not a nature of lon-ness
    - Fulfils the usage as a discourse marker / back-channelling

# Truth in toki pona (ix)

- Also possible to argue: lon-ness varies with context / speaker
  - Pluralism about lon!
  - In line with toki pona's nature
  - Poll respondants often felt that statements were not globally applicable

#### Truth in toki pona (x)

- Potential issues with "lon" as "true":
  - Certain interpretations can be *philosophically challenging* to justify as truth
    - **Consider**: can a statement be *lon*, while its content is not?<sup>37</sup>
  - Challenging to interpret
- Other toki ponan expressions of truth?
  - pakala (ala)?

<sup>&</sup>lt;sup>37</sup>This is Tarski's Convention T, which he holds as a criterion for adequacy of theories of truth (Tarski, 1983)

4 Knowledge in toki pona

#### Knowledge

- What is *knowledge*?
- How does knowledge affect how people understand?
- How does knowledge affect how pepole talk?
- What is knowledge's *role* in the process of communication?

#### Knowledge (ii)

- *Traditionally*, knowledge is taken to be:
  - ► *Factive* of something *true*
  - ▶ *Belief* the attitude of *taking something to be true*
  - ▶ Justified having grounds to believe that something is true

# Knowledge (iii)

- By this definition,
  - ▶ It is possible to have justified belief in *falsehood*;
  - Justified belief in falsehood is not knowledge
  - ► Example:<sup>38</sup>
    - A normally reliable friend lies; I justifiedly believe them

<sup>38</sup> Taken from Audi (2011)

#### **Presuppositions**

- If we hold this definiton,<sup>39</sup>
- Stating "A knows that B" **presupposes** B<sup>40</sup>
  - "knows" marks B as being taken for granted
  - "knows" is a *factive* **presupposition trigger**
- "I know you hate leeks" → you hate leeks

#### Presupposition

mi toki ala e ijo taso mi toki sama ni: ijo li lon

<sup>&</sup>lt;sup>39</sup>Some argue for non-factivity (Bricker, 2022; 2025; Buckwalter & Turri, 2020); see Shaffer (2021) for criticisms <sup>40</sup>This is contingent on accepting "knows" as a *factive verb* (Hazlett, 2010; 2012)

# Presuppositions (ii)

- What is "taken for granted" *specifically*?
- Stalnaker (2002) offers:
  - ▶ P presupposes Q if:
    - P would otherwise be *inappropriate*
    - Q was not already presupposed

#### Presuppositions (iii)

- Many kinds of **presupposition triggers**:
  - ▶ He *stopped* running  $\rightarrow$  he was running
  - ▶ I know *everyone* there  $\rightarrow$  there are people there
  - My cat meowed  $\rightarrow$  I have a cat

#### **Presupposition trigger**

mi toki ala e ijo taso mi toki e ijo ante la, mi toki sama ni: ijo li lon ijo ante ni li tan pi toki ni

# Presuppositions (iv)

- But  $not\ all$  presuppositions come from presupposition triggers
- Some are *pragmatic presuppositions*:
  - Does not come from a specific word or phrasing
  - E.g. this presentation presupposes you speak English

# Presuppositions (v)

- What happens when a presupposition is *false* (=presupposition failure)?
  - ▶ I know everyone on Mars → there are people on Mars...?
  - ► The king of Antartica is old → Antartica has a king...?
- Often renders statements nonsensical
  - ▶ **Aside**: does it always?<sup>41</sup>
- Are these statements *false*?

<sup>&</sup>lt;sup>41</sup>See Yablo (2006)

# **Presupposition Failure**

**Consider**: "I know the king of Antartica" / "I do not know the king of Antartica"

- If presupposition failure makes statements false, both statements are false
  - Is this okay?
- A similar question can arise for *pragmatic presuppositions*:
  - "soweli suli Alu is kind, but Haru is not"
  - ▶ Presupposes *soweli suli Alu* is not the same individual as Haru
- Frege (1892/1952) & Strawson (1950) propose that they have no truth value instead

# Presupposition Failure (ii)

- Strawson (1964) later revised his claim:
  - ► The former is false and the latter (its negation) true
  - ▶ It is "natural enough" to say this
- About who I know, not who knows the king of Antartica;
  - ▶ The king of Antartica is *not the topic of discourse* (=at-issue)
- Only results in no truth-value if the *topic of discourse* is affected
  - E.g. the king of Antartica is young

# Presupposition Failure (iii)

**Compare**: "the king of Antartica is known by me"

- Strawson proposes this would more naturally have *no truth-value* 
  - Sentence construction can affect perceived topicality
  - ► The English passive voice commonly emphasises the promoted object

# Presupposition Failure (iv)

Consider: "the King of Antartica is sitting in that chair"

- Strawson's revised view would suggest this has no truth-value
  - Who is sitting in that chair is likely the perceived topic
- But what if the speaker points at an empty chair?

# **Presupposition Failure (v)**

- Lasersohn (1993) argues it is *natural* to say it is false
- Seeing that there is nobody in the chair provides perceptual justification<sup>42</sup>
- *Knowledge* that there is nobody in the chair makes the statement false
- Lasersohn attributes this to the *pragmatics of verification* 
  - ▶ Knowledge allows people to verify a statement despite presupposition failure
  - ▶ If unverifiable without addressing the presupposition, Lasersohn agrees no truth-value

 $<sup>^{42}</sup>$ Whether and how empirical evidence and perception are sufficient for knowledge is an interesting question, but it is assumed here for exposition

# Presupposition Failure (vi)

**Consider**: A tells B "C's dog is brown" without B knowing C has a dog

- The statement presupposes C has a dog
- *The presupposition is true*, but the statement likely confuses B anyway
- Motivates a broadening of our definition for presupposition failure:
  - ▶ When presupposition P does not belong to the "common ground"
  - All accept P and believe this and believe that all believe this...<sup>43</sup>

<sup>43 (</sup>Stalnaker, 2002)

# Knowledge and Presuppositions in toki pona

- What about in *toki pona*?
- toki pona heavily involves presupposition
  - Recall: toki pona relies on the Principle of Charity
  - toki pona relies heavily on context
- How does toki pona deal with presupposition failure?

# Knowledge and Presuppositions in toki pona (ii)

- Corollary: the Principle of Charity is a pragmatic presupposition
  - Follows from it being an assumption of the language
    - Similar to how this presentation presupposes you speak English
- **Recall**: lack of intention of relevance is *incoherent* in toki pona
- Failure of this presupposition results in inappropriate utterances

# Knowledge and Presuppositions in toki pona (iii)

- Claim: toki pona heavily involves presupposition
  - Recall: personal expression is necessary in toki pona
  - Would otherwise be inappropriate if not for my personal belief
  - I presuppose my personal beliefs when I personally express
    - If the personal beliefs are not already presupposed
- Is this bad?

# Knowledge and Presuppositions in toki pona (iv)

#### Claim: toki pona requires presupposition accomodation

- In personally expressing, *I do not assume* you have my belief
- Appears to contradict our broader definition
- Listeners can adjust their common ground to include my belief<sup>44</sup>
  - Recall: my belief can be Radically Interpreted
- Listeners will have my (radically interpreted) belief
  - **Important Note**: common ground is *only for the purposes of conversation*

<sup>44(</sup>Von Fintel, 2008)

# **Knowledge and Presuppositions in toki pona (v)**

- What if presupposition accommodation fails?
  - My belief is too controversial
  - Their radical interpretation is too unrefined
- Then there is **presupposition failure** 
  - We enter into presupposition repair

#### Presupposition accomodation

mi toki ala e ijo taso mi toki sama ni: ijo li lon taso sina pilin ala e ni: ijo li lon toki pona la sina ken pilin ni

#### Presupposition repair

mi toki ala e ijo taso mi toki sama ni: ijo li lon taso sina la toki li ike mi en sina o pona e toki

# Knowledge and Presuppositions in toki pona (vi)

- Presupposition repair is a kind of conversation repair 45
- Example:
  - "mi soweli e moku"  $\rightarrow$  you can soweli e moku
  - ► Could feel this is too controversial and ask: "sina seme e moku?"
- Is this bad?
  - ► Glanzberg (2005) suggests this is normal even for natural languages
  - Details mandatory and optional repair for different triggers<sup>46</sup>

<sup>&</sup>lt;sup>45</sup>For more information, check out resources on Conversation Analysis (CA); I will gloss over it here

<sup>&</sup>lt;sup>46</sup>For an interesting experimental verification on this, see Domaneschi et al. (2014)

# **5 Conclusion**

Conclusion 115 / 122

- Applications of philosophy to language and toki pona
- How philosophy can help us teach and understand
  - Much overlap with commonly repeated advice
  - ▶ Philosophical justification and reasoning for common advice
- Thank you for listening to my talk!
- **Note**: I have a forum post in tomo-mute (titled "lon li lon lon lon lon")
  - I encourage you to discuss and ask questions there!

- With inspiration from:
  - ► Michael Morris's An Introduction to the Philosophy of Language<sup>47</sup>
  - Quine's Word and Object
  - ▶ David G. Stern's The Cambridge Companion to Wittgenstein
  - The Oxford Handbook of Truth edited by Michael Glanzburg
  - Sections from the Standford Encyclopedia of Truth
- Slides made with Typst, using the Diatypst template

<sup>&</sup>lt;sup>47</sup>Recommeded reading if this presentation makes you interested

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