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**Stability, variation, and causal circularity:  
disclosing dynamic patterns in Italian idiomatic constructions**

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# Idiomatic construction: a working definition

“A conventional construction whose meaning can shift, to some extent, between a **literal** and a **figurative** level, and whose use is shaped by specific formal, semantic, pragmatic, cognitive, affective, socio-cultural, discursive and situational factors” (see Cameron and Deignan 2006; Langlotz 2006; Torre 2013b).

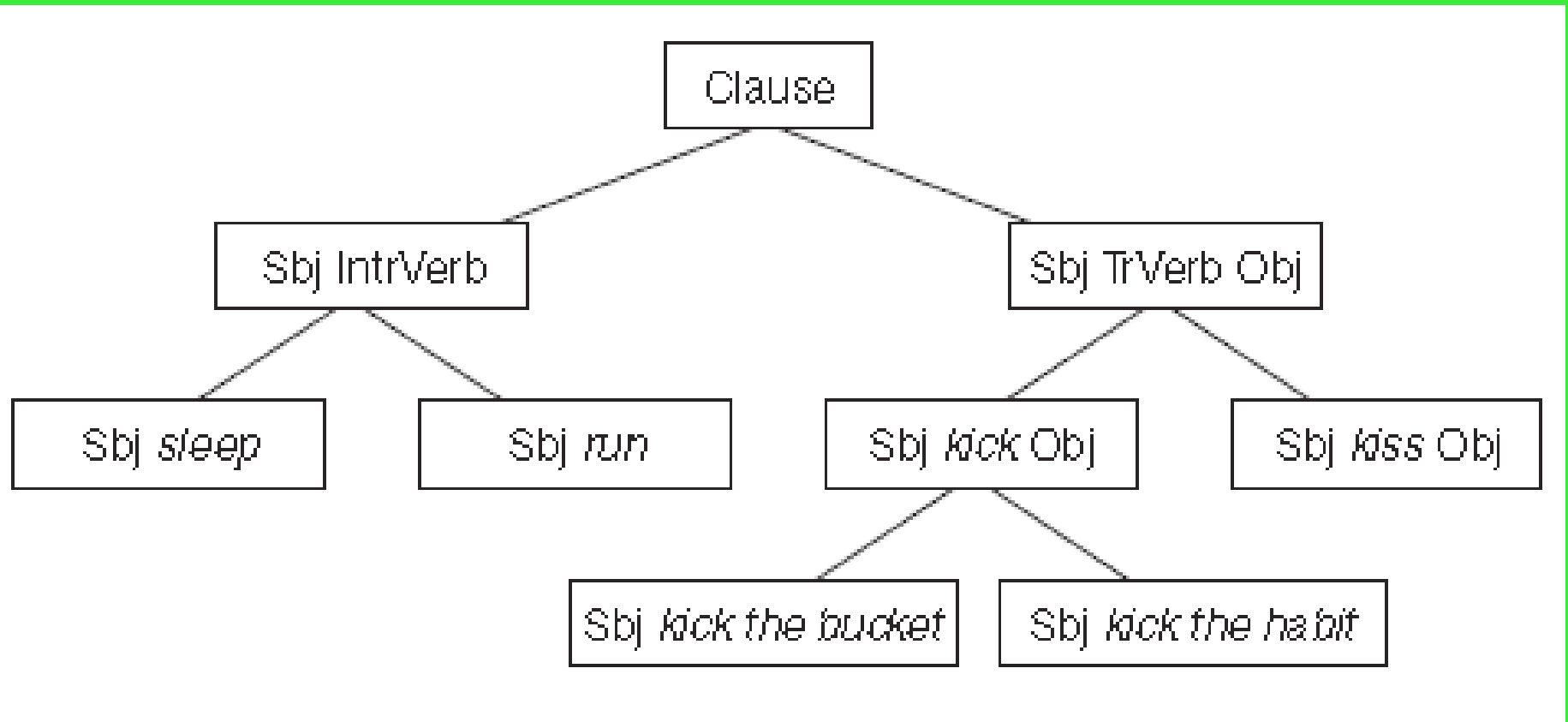


# Language as a construction-network

- Mainstream generative theories consider language as an innate **code**, made up of **formal symbols** assembled according to **abstract rules** (e.g. Fodor 1975; Jackendoff 1994; Pinker 1999);
- Nevertheless, an alternative perspective which has been growing fast in the last decades sees linguistic units as **form-meaning pairings**, which represent the only **primitive constituents** of language (e.g. Croft 2001; Langacker 2008);
- On this view, language is an ever-changing **network** of interrelated constructions of different levels of complexity (“the constructicon”), which is constantly updated and revised as a result of **usage-events** (e.g. Croft 2001; Goldberg 2003; Tomasello 2003).

# The constructicon

(Tomasello 2003: 107)



# Language as a dynamic system

Another perspective, largely consistent with a constructionist view, sees language as a **complex dynamic system**, which emerges from **intersubjective experience** and evolves over time in an ongoing **self-organizing process** (e.g. Elman 1995; Cowley et al. 2004; Rączaszek-Leonardi and Kelso 2008; Ellis and Larsen-Freeman 2010; Hodges and Fowler 2010; Cowley 2011; Fowler and Hodges 2011).

# Basic dynamic-systems principles

- **dynamic system:** a complex of aspects all evolving in a continuous, simultaneous, and mutually determining fashion;
- **state:** a set of variables that may change as a function of time;
- **phase space:** the set of all possible values variables can take;
- **trajectory:** the sequence of states generated by the dynamics;
- **attractor state:** a small stable set of the phase space toward which all nearby trajectories converge;
- **basin of attraction:** a set of points converging to the attractor over time.

# The inner structure of idioms

- Idiomatic constructions have often been dismissed as **non-decomposable** items of non-literal language, peripheral and uninteresting. (e.g. Chomsky 1980; Nicolas 1995).
- Against this view, in the last decades psycholinguistic and corpus-linguistic studies have shown that idioms can often undergo **structural modification** and display different **variation patterns** (e.g. Moon 1998; Langlotz 2006; Naciscione 2010; cf. also Gibbs and Colston 2012).

# Langlotz's (2006) criteria for the classification of idiomatic entry forms

- **Compositionality:** the derivational predictability or regularity of the composite structure by adding up the values of its component parts.
- **Figurative-literal isomorphism:** the contribution of a component structure to the overall compositional value.
- **Motivation:** a speaker's ability to make sense of an idiomatic expression by reactivating or remotivating its figurativity, i.e. to understand why the idiom has the figurative meaning it has, given its literal meaning.



# Motivation patterns

- **Conceptual metaphor:** abstract objects and situations are conceptualized in terms of more concrete ones (e.g. Lakoff and Johnson 1980; see also Gibbs 2013).
- **Conceptual metonymy:** an aspect or element in a conceptual domain is named to refer to another one which stands in a contiguity relation with it (e.g. Barcelona 2000).
- **Conceptual blending:** the integration of different mental spaces which gives rise to an emergent conceptualization (e.g. Fauconnier and Turner 2002; Hutchins 2005).
- **Emblems:** cultural symbols and stereotypes (see Langlotz 2006; cf. Zinken 2003).

# An empirical analysis

- A sample of 50 idiomatic constructions collected from Sorge's (2010) **dictionary** of Italian idioms.
- 70 to 100 **occurrences** per idiom, retrieved in the *ItTenTen* corpus, investigated via the online corpus-query system *Sketch Engine* (<http://www.sketchengine.co.uk>).
- A **total** of 4,809 occurrences of idiomatic constructions in use.

## An example

Essere un sepolcro imbiancato.

Be:inf a.msg sepulchre.sg whitewashed.

“to be a whitewashed sepulchre”, meaning to be a hypocrite and a fake.

(to some extent, “sepolcro imbiancato” can be seen as close to the English “holier-than-thou”).

# An example

Sketch Engine

user: Mr. Enrico Torre corpus: itTenTen

Concordance  
Word List  
Word Sketch  
Thesaurus  
Find X  
Sketch-Diff  
?

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Save  
View options  
KWIC  
Sentence

Sort  
Left  
Right  
Node  
Shuffle  
Sample

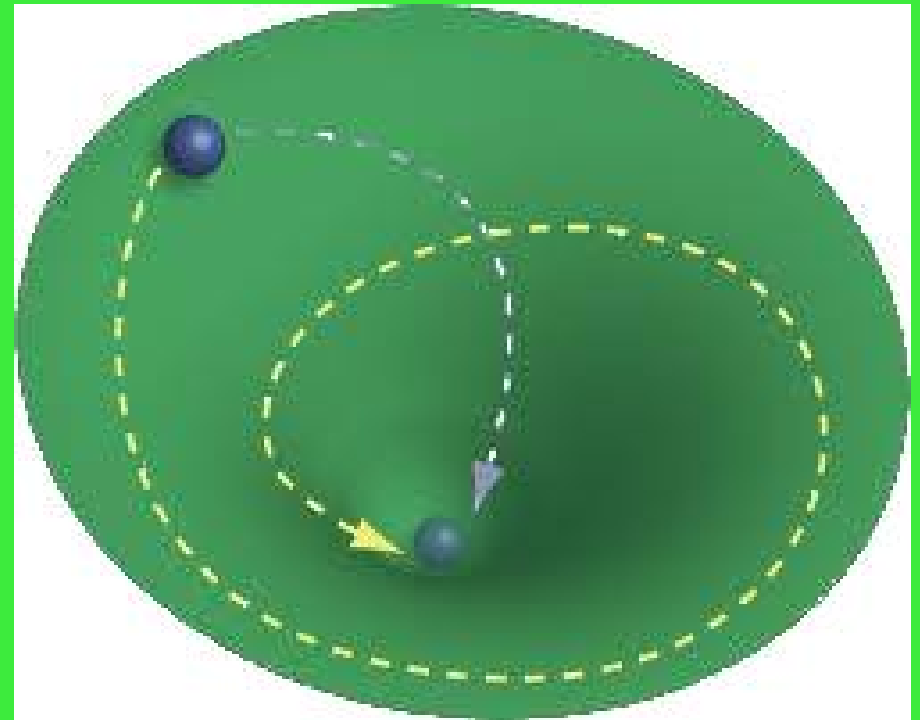
Query **sepolcro-n** > Positive filter (excluding KWIC) **imbiancato** 827 (0.3 per million)

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doc#13566	ovviamente condoglianze ma senza essere <b>sepolcri imbiancati</b> </p> <p> Postato da G.Fregonara
doc#22119	è possibile un'altra politica? E noi, i <b>sepolcri imbiancati</b> del cambiamento tranquillo,
doc#27128	può benissimo adattarsi a molti sinistri <b>sepolcri imbiancati</b> che qui scrivono. </p> <p> Postato
doc#31873	esclusione di colpi contro l'Ordine dei <b>sepolcri imbiancati</b> . Il grande scrittore francese
doc#32180	. Il Paese è molto più avanti dei troppi <b>sepolcri imbiancati</b> che lo dirigono». In effetti
doc#35117	, troppi comodi, troppe incurie, troppi <b>sepolcri imbiancati</b> . Ma tanti altri preti, in alto
doc#69619	a poche settimane dalle elezioni sono un <b>sepolcro imbiancato</b> . </p> <p> 4. Scritto da: mary </p>
doc#70199	Non si sospetta neppure che essa sia un <b>sepolcro imbiancato</b> . L'immoralità - e innanzitutto
doc#70199	è certo una casa riempita dal sole. È un <b>sepolcro</b> non <b>imbiancato</b> . Ma in un tempo di violenza
doc#70199	insinuare il sospetto che la morale sia un <b>sepolcro imbiancato</b> ? D'altra parte, l'uomo vivrà
doc#70199	di abitare quelli non imbiancati abiterà <b>sepolcri imbiancati</b> ? In nome della morale si condannano
doc#70199	si è azzardati a dire che la morale è un <b>sepolcro imbiancato</b> : perché la "buona fede" è il
doc#70199	sepolcro della "malafede". Chi parlava dei <b>sepolcri imbiancati</b> guardava verso una morale sublime
doc#70199	affermare che proprio le morali sublimi sono <b>sepolcri imbiancati</b> ? </p> <p> Attori, artisti e calciatori
doc#86629	neppure ai conservatori. Una volta si diceva ' <b>sepolcri imbiancati</b> '. Chissà se si dice ancora.
doc#98316	detrimento della domanda interna.Sentire questi <b>sepolcri imbiancati</b> spargere menzogne senza che

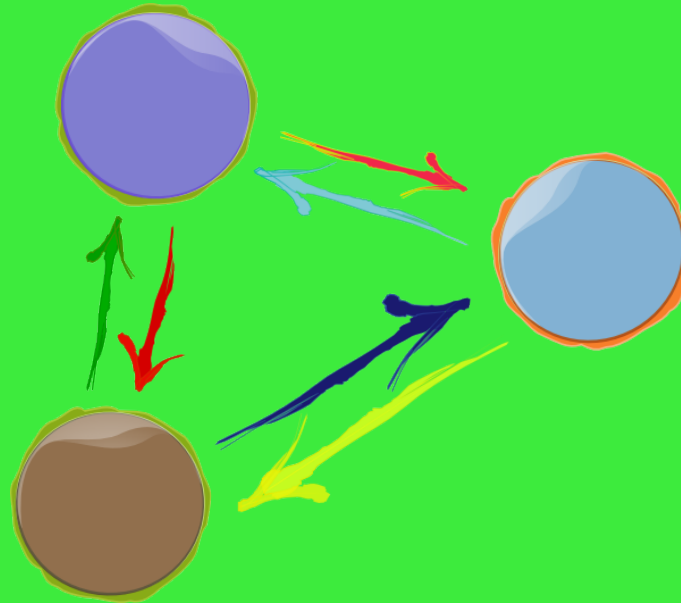
# An empirically-detected attractor-state

**Definition:** the bundle of (both lexical and syntactic) **constructions** which are quantitatively (and, to some extent, analogically or ironically) associated with the **keywords** of an idiom, together with the particular semantic, pragmatic, affective, and socio-cultural **values** related to their **co-occurrence**. If the bundle includes several possible structures, these may differ in terms of the attractive force they have.



# An empirically-detected attractor-state

- The attractor emerges as a result of the constant, non-linear interaction of linguistic, cognitive, and socio-cultural factors in actual language usage events.



# An empirically-detected attractor-state

FORMAL POLE	
Verbal form	Phrase order
Present IIIpl (27%)	NP(S) V NP(SC) (39%)
Present IIIsg (25%)	V NP (SC) (18%)
Present IIpl (8%)	NP(S) (7%)
Present Ipl (7%)	NP(S) V AdjP(SC) (6%)
Infinitive (5%)	

# An empirically-detected attractor-state

## MEANING POLE

Combination of motivation patterns

conceptual metaphor: PEOPLE AS CONTAINERS

implying: PERSONAL QUALITIES AS CONTENT

elaboration: BAD QUALITIES AS DISGUSTING CONTENT

conceptual metonymy: OBJECT FOR EMOTION

elaboration: ROTTEN FLESH FOR DISGUST

implying: TOMB AS A CONTAINER OF DISGUSTING

CONTENT

conceptual metonymy: WHITEWASHING FOR EMBELLISHMENT



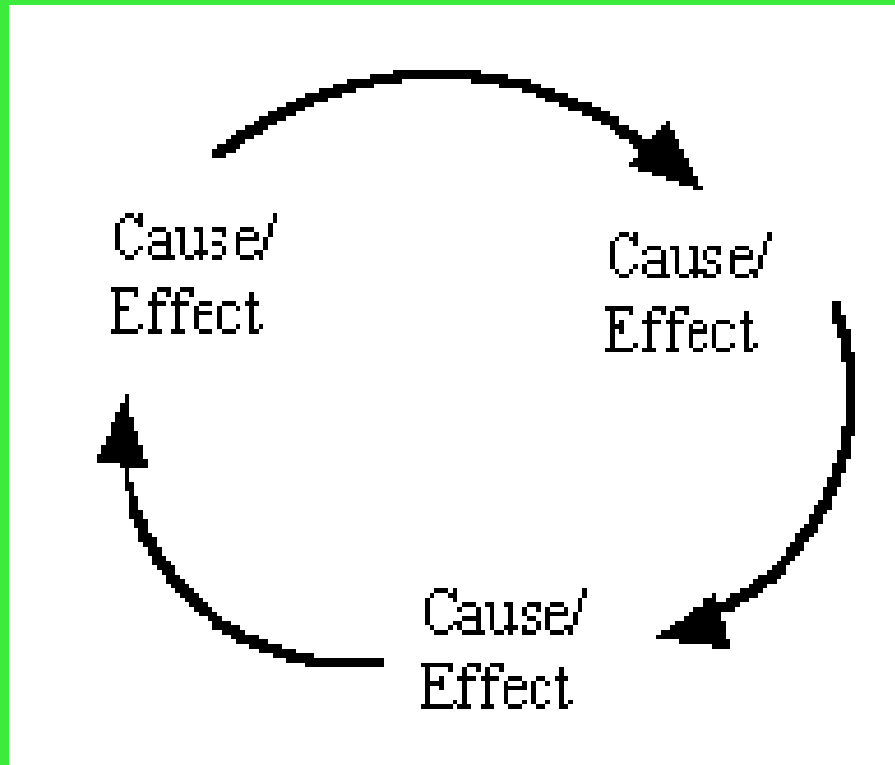
# The behavioral tendencies of Italian idioms

Idioms in use show several variation patterns, which differ with regard to distinct aspects of their form and/or meaning. Adopting Langlotz's (2006) tripartite scheme, it is possible to observe that idiomatic **form** can be modified in terms of **morphosyntax**, **syntax**, and the **lexicon**, whereas idiomatic **meaning** can vary with regard to **polysemy**, **adaptation**, and **ambiguation**.

# The behavioral tendencies of Italian idioms

- The variational behavior of idiomatic constructions can be observed and evaluated from a **quantitative** perspective, since some idioms are quite flexible, and thus more likely to undergo modification, whereas some others are more rigid, and thus display a tendency to be more stable.
- Idiomatic variants can also be the object of **qualitative** considerations, as they range from plain lexicogrammatical adaptations to striking instances of wordplay. They can be seen as distributed along a cline of conventionality and conspicuousness.

# The behavioral tendencies of Italian idioms



Each construction can be seen as a **dynamic system**, regulated by a principle of **causal circularity** (e.g. Kelso 1995; Deacon 2003), whereby:

- on the one hand, a bundle of formal, semantic/pragmatic, cognitive, affective, socio-cultural, discursive, and situational factors works as an **attractor state**, toward which the occurrences of an idiomatic construction tend to converge;
- On the other hand, the **trajectory** of occurrences of the construction in context constantly (re-)shapes the attractor state, in a self-organizing fashion.

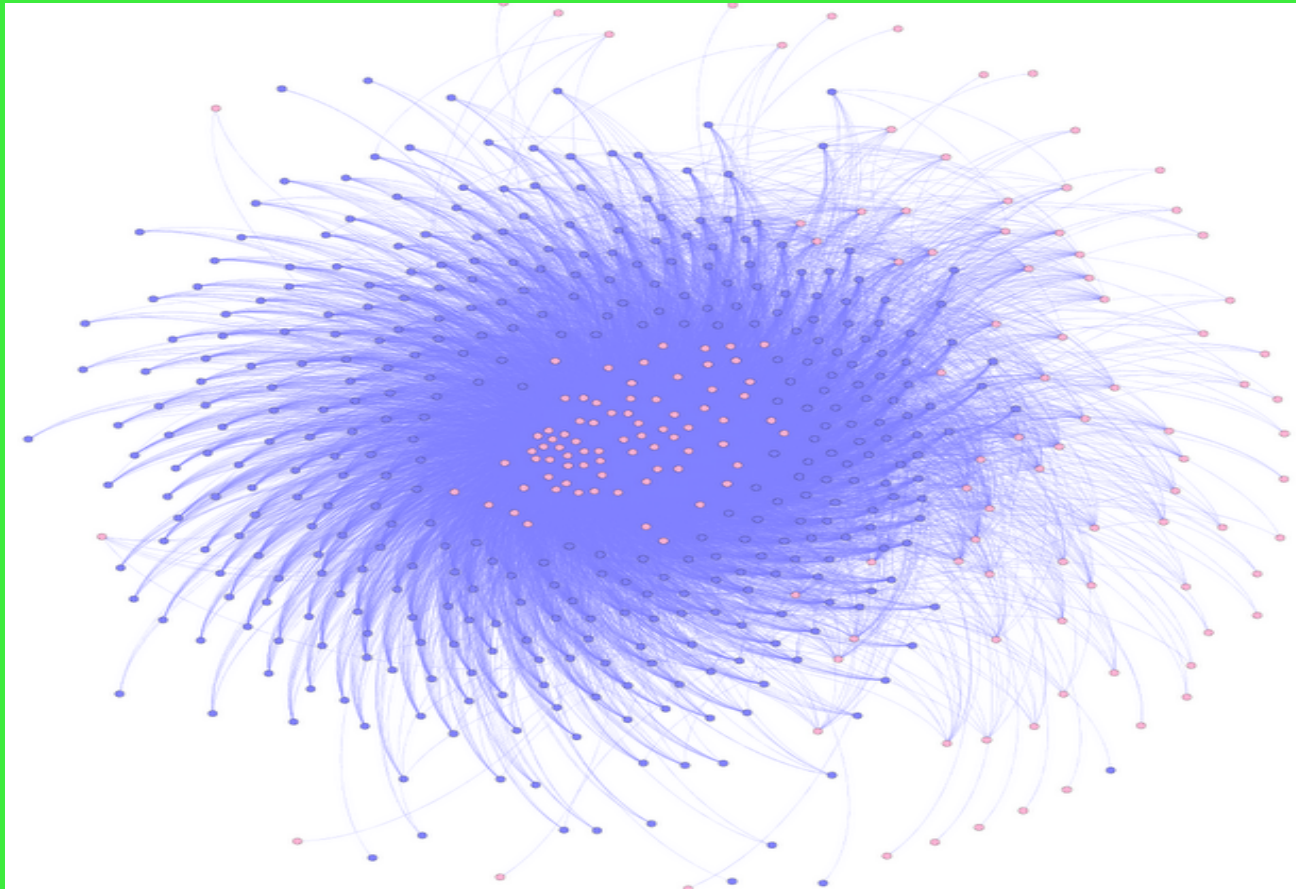
# Idiomatic constructions in dynamic-systems terms

- Idiomatic construction = **dynamic system**;
- Each particular usage-event = **state**;
- The set of possible uses of an idiom = **phase space**;
- The amount of all the observed uses of an idiom = **trajectory**;
- The possible lexical and grammatical forms and the combination of motivation patterns = **basin of attraction**.

# Beyond idioms: a network of dynamic systems

- The case of idiomatic constructions only represents an example of the viability of the **integration** between a dynamic-systems view and a constructionist approach to the study of language.
- Language can be conceived as an open, massive network of interactive dynamic systems, which stand in a synergetic relation of **mutual influence** with each other and with other facets of human cognition. In other words, language can be seen as an integrated branch of cognition, shaped by the bulk of interactions between lexical, morphosyntactic, syntactic, semantic, pragmatic, cognitive, socio-cultural, discursive, and situational factors, in a non-linear **self-organizing process**.

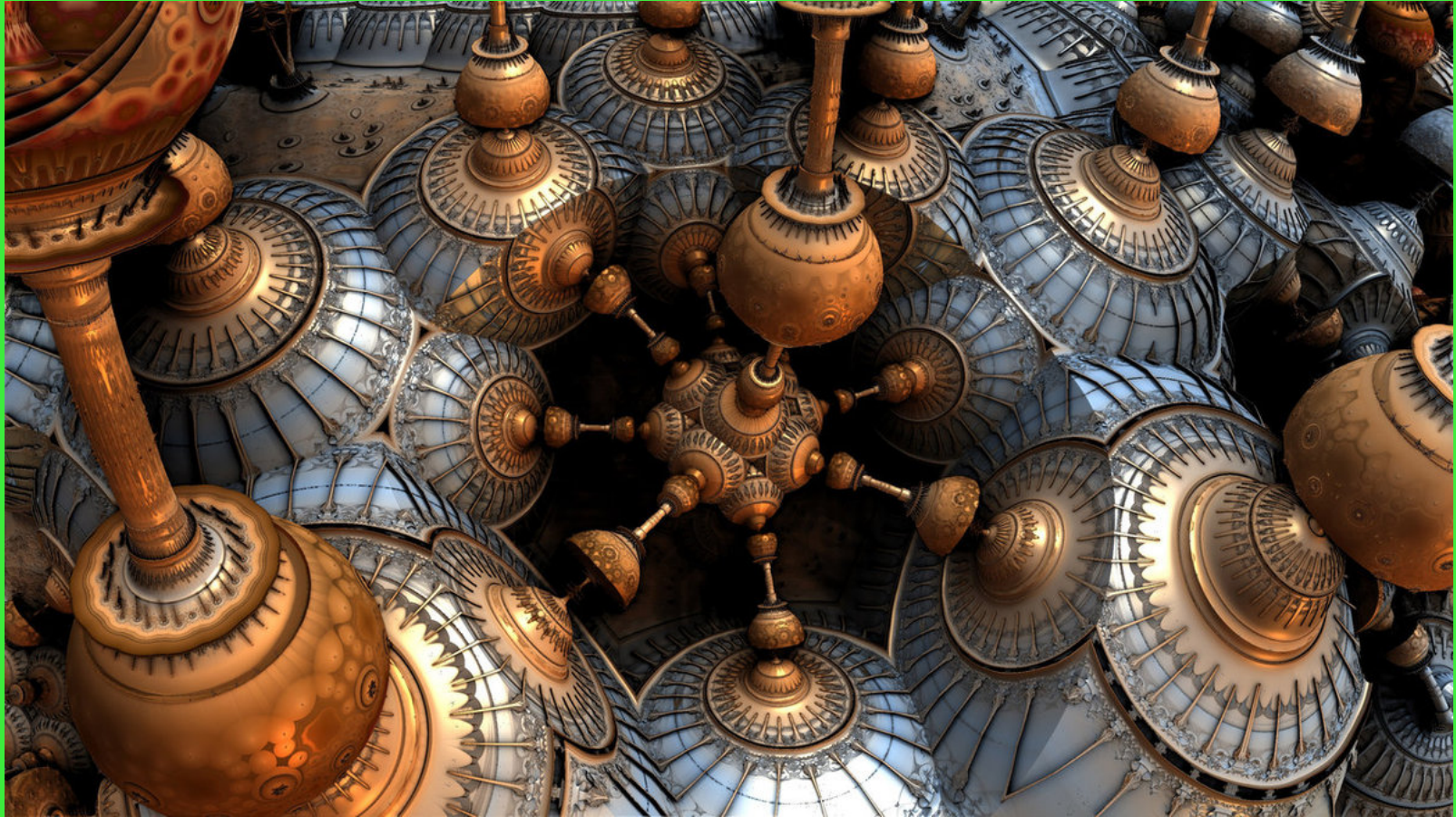
# Beyond idioms: a network of dynamic systems



# A fractal architecture for language and cognition?

- The **same mechanisms** work at different dimensions, time-scales, and levels of granularity (e.g. Gibbs and Cameron 2008).
- Language seems to show a **self-similar** architecture (e.g. Van Orden et al. 2010).
- The same conclusion may be extended to **cognition** as a whole (e.g. Ward 2002).
- Thus, language and cognition could be said to stand in a **part-whole** relationship, displaying a fractal structure (cf. Torre 2013a, 2013c).

# A fractal architecture for language and cognition?





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THANK YOU!

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