# Sense Machine: The Instinctual Drive Code of Natural Language

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Abstract. In cognitive semantics, exists the endeavor to reduce predicates in natural language to "primitive predicates" in order, to allow evaluation of text. With these primitive predicates it is possible to capture only a limited number of human behaviors and states. In reality, the innumerous human behaviors seem limitless. In this paper, we present the key aspects of the Sense Machine, a new linguistic system that reduces expressions in natural language to Basic Elements. These Basic Elements can be combined in numerous ways with a quinary system to compose thousands of human behaviors and objects. The diversity of human behavior is grasped substantially by the different combinations of only five factors together with some coefficients. A further important element of the Sense Machine is the concept of Areas (of life). The Area gives a theme similar, to special domains for text corpora. Each different Area has five specially shaped Basic Elements. When combined, they generate new specific activities only for this respective Area. With this system, it is possible to analyze even very short behavioral describing texts and dialogues in real time, without the need to search for distributions. A text analysis with the Sense Machine produces meanings in the sense of human thinking and striving. All, of the specially shaped Basic Elements of the different Areas trace back to the roots of the childhood phases (Oral, Anal, Genital, Urethral, Intentional). These connections to the roots give a (uniform) code for all specially shaped Basic Elements. The code is used to disassemble the "Atom" of a single activity (predicate) and a single object. The mixture of Basic Elements provides meaning and especially motivation of the activity. This is a new kind of lexical semantics. The common roots in the childhood phases supply possibilities to associate across the Areas, activities and motivations. This means, Sense Machine knows the connection between activity, motivation and original root and therefore, the sense of human behavior.

Keywords: lexical semantics · primitive predicates · motivation recognition · psychological evaluation

## 1 Introduction

Humans are a higher form of creatures on our planet and all of them have instinctual drives in order to survive. For example, each higher creature that had no sexual drive is extinct millions of years ago. It is similar with brood care and social behavior. The activities of humans trace back to basic drives which exists since millions of years.

I have heard, men think of sex every 20 minutes. But it is not usually spoken out so often. Of course, there are a number of other basic drives. For example, the basic drive to realize a wish. In the childhood, nearly everyone learns to withhold the expression of his/her personal wishes. In the defiance phase, the human lives out the basic drive to realize the will. But nearly everyone has to learn to withhold these drives.

In the scientific discourse of cognitive semantics and computer linguistic, the very important role of basic drives is missed. It talks about intelligence that must be able to solve problems. But the question is: what is the original cause for a problem? There are thousands of problems but they have a common denominator. They are barriers on the way to reach the fulfillment of a drive.

One example of the scientific world: a test series doesn't bring the desired results. Thus, the scientist cannot finish his work, cannot write his paper, cannot get success and hence cannot get appreciation. And *that* is the basic drive. The drive to get appreciation is a very strong basic drive. Many technical advances were only possible by this.

Sense machine works with the basic drives. The core message is: every activity of humans (and the textual description of it) follows a mixture of basic drives. This applies to the simplest daily handling and the most sophisticated scientific discussion. The work of the Sense Machine gives the sense in regard of motivation and basic instincts that are implied in behavioral describing texts. One advance lies in the possibility to understand short texts in real time without text corpora, another lies in using human needs.

In cognitive semantics exists the endeavor to reduce predicates in natural language to "primitive predicates" to allow evaluation of text. With these primitive predicates it is possible to capture only a limited number of human behaviors and states. In reality, the innumerous human behaviors seem limitless.

Sense Machine uses for the reduction of human behaviors a quinary system. The diversity of human behavior is grasped substantially by the repeated combinations of only five factors together with some coefficients. This system gives the theoretical possibility by multiplication of all factors, to define million words that relates to behavior. Practicality, it is possible to depict precisely with motivation, at least the most important several thousand terms and activities of daily behaviors of humans.

Sense machine is limited to human activities and human objects. It is not possible to draw natural phenomena and science topics as astronomy, chemistry, mathematic, physic and so on. But it is good for psychology.

One of the core elements of the sense machine is the Area. The basic drives change its shaping with each Area. Imagine you need different shoes for your feet depending on the ground. Special shoes for swampy ground, for mountains, for the city and so on. In the same manner, the basic drives change the shaping depending on the respective Area of life. For example: the basic drive *striving* means in the material Area: striving to a destination, in the interpersonal Area: striving to a sexual goal, in the fight/war Area: striving to a warlike goal.

There are many Areas. We know currently 4 main Areas and 45 sub Areas. Probably, there are many more. Each of the basic drives comprises a bundle of shaped drives across the Areas. Each was originally important for survival.

Our most researched Area is the material Area. It comprises the most important material activities of the daily live and things (objects) that can be bought by money. The working principles of the sense machine date back to the research of the middle of the last century. Several scientists explored the development of the drives in the childhood phases. Especially Erikson [1] and Schultz-Hencke [2] are referenced for this work.

Sense machine is based on five *Basic Activity Elements* and four *Options for Realization*. These Basic Activity Elements are derived from the basic instincts developed in the childhood phases. These elements are the building blocks for the behavior of humans. Because these elements are so important, there are special childhood phases in order, to generate, train, and adjust these basic behaviors. Sense machine relies on these activities and objects and not on words.

For the representation of personal driving in relation to the environment and the society, there is a psychologic classification called *Options for Realization*. The options are used to specify the columns of table 1. The *Options for Realization* were drawn from Lüscher [3]. They are described in the next chapter.

The derivation from the drives in the childhood phases to the Basic Activity Elements can be seen in our paper [4]. Table 1 shows the *Basic Activity Elements* in the shaping for the material Area [5].

heteronomous / autonomous / autonomous / heteronomous / Instinctual Goals concentric concentric eccentric eccentric 1 Oral Phase waiting for getting got 2 Anal Phase disposing of, realizing the will determining 3 Genital Phase striving, going, achieving goals moving towards 4 Urethral Phase performing, being recognized serving 5 Intentional Development informing, turning towards information curious

Table 1. Basic Activity Elements – drive activities for instinctual goals developed in the childhood phases

The five instinctual goals (leftmost column) are the background for the activities in an Area.

Sense Machine sets up on activities, not on words. Sometimes objects are used to precise the activity.

The five Basic Activity Elements of the material Area are (for better understanding, see pictograms):











Each pictogram has a typical situation, but is meant figuratively. For example, *striving* means striving to a destination *and* striving to any goal too. *Disposing* (not in the sense of waste) means disposing of possession (included house and apartment) *and* using something that is easily reachable.

A special word in relation to the Basic Activity Element: performing.

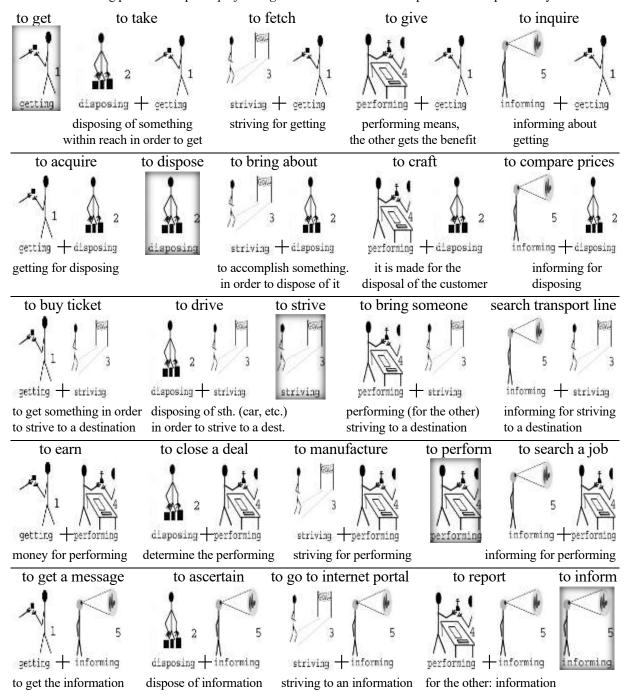
Getting, disposing, striving, and informing are for the benefit of the actor. But performing is for the benefit of other(s). In the interpersonal Area, the reward is the appreciation, in the material Area the reward is money. The field of the performing can be anything. Typical it is the selling of goods.

"Disposing of" means handling of things that are at my disposal. "Striving" means aspiring for a goal that cannot be reached at once. "Striving" needs efforts and some time for reaching whereas "disposing of" needs power about something and can be realized at once. "Performing" means professional work against payment instead of simple help.

These five basic activities can be mixed together. Similar, to the primary colors that can be mixed into new colors, Basic Activity Elements can be mixed (combined) for new activities. Reminder: disposing is not in the sense of waste.

## **2** The Combining of Basic Activities with two Elements

The combination with only two Basic Activity Elements (5 x 5 = 25 positions) is not precise, but is good for easier understanding. The *two* pictograms *combined* together represent the *one* activity written above it. *Both* stick figures, relates to *one* acting person. Exception: *performing* +... which relates to two persons in complementary manner.



## **3** The Atom of the Sense Machine

The Basic Activity Elements are basic building blocks that can be combined several times. One of the Basic Activity Elements gives the Goal of the behavior. The others give the Assistances for reaching the Goal. The Assistance is in hierarchy: Main Assistance, Sub assistance, Sub sub assistance. . . Each of the Basic Activity Elements are connected to one of the basic drives (1-5).



Fig. 1. The Atom of the Sense Machine - One activity or term

There are "Atoms" with none, one or several Assistances. With these combinations and the different Areas, they build thousands of activities together with the execution by the Options for Realization. The Options for Realization build the connection to the behavior of other people and environment, similar to electrons that build the connections to other atoms.

There are four Options for Realization: Heteronomous-Concentric, Autonomous-Concentric, Autonomous-Eccentric, Heteronomous-Eccentric.

These options describe the determination zones. It describes whether a special behavior is determined from the actor (autonomous) or determined from the outside (heteronomous). There are two determination zones: the zone of the actor (concentric) and the zone outside the actor (eccentric).

An easy example from the interpersonal Area:

If a commander gives a command to a soldier, the commander is autonomous and the soldier is heteronomous. The soldier is within the (power) field of the commander: concentric from the view of the commander and eccentric from the view of the soldier.

Command: autonomous-concentric, obey: heteronomous-eccentric.

In this manner, the Options for Realization are connections between people, or more precisely, connections between the behaviors of the people in a complementary manner.



Concentrated to self, aligned heteronomous (all kinds of waiting and hoping)



Self-determined use of things, that are in the own field



Self-determined activity in the outside field

eccentric



Heteronomous adapted activity in the outside

field

## 4 The Mechanisms of the Sense Machine



Fig. 2. The most important Areas

The Basic Instinct Directions (derived from the childhood phases – see Table 1.) build the roots for the different behaviors in the different Areas of life. Each Area has its own shaping of the Basic Activity Elements. The numbering 1 to 5 applies uniformly for all Areas.

For example, the Material Area contains the above used Basic Activity Elements:

- 1 getting,
- 2 disposing,
- 3 striving,
- 4 performing,
- 5 informing.

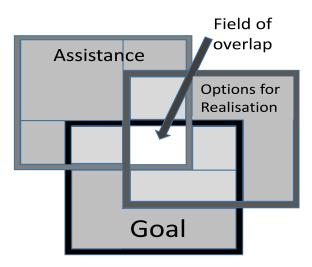


Fig. 3. Constricting mechanism

The Area and the dimensions: Goal, Assistance(s), Options for Realization defines very precisely an activity. Each of the dimensions comprises a large field of behaviors, but all three in overlap together give only a very small space, only one special activity or one special meaning of a term at most. (See Fig. 3.)

This is the constricting mechanism of the Sense Machine. The Goal, the Assistance and the Options determine the kind of activity.

That happens generally with few of the five Basic Activity Elements that refer to an Area (stepping back to the five Basic Instinct Directions basis for all Areas).

Nearby lying activities with the same coding are synonyms in the sense of motivation and basic instincts. These synonyms are most more precise as usual synonyms.

The Sense Machine Code defines activities (a verb or a short sentence):

- a By the Area (Fig. 2) the general topic,
- b by the (combined) Basic Activity Elements, the more and more specialized theme,
- c by the Options for Realization, the manner of connection to the behavior of other people or the environment.

While translating, Sense machine takes activities from text and looks for the codes of the words found in a data basis. Sense Machine looks for Area, Basic Activity Elements and Options for Realization of found words. These represent the meaning of the activities in the sense of motivations derived from the basic instincts.

#### 5 Three-Dimensional Definition

In the above two-dimensional examples, the Options for Realization are omitted for the better understanding in the first step. Because they are only two-dimensional, they have not a very constrictive precision.

Because of the consistency with objects (later explained), the goal is always on the second position.

For example, to the definition "to bring about" belongs the Option for Realization autonomous eccentric. In contrast, "to craft" belongs to heteronomous eccentric.

to bring about to craft

Activity: "To bring about"

striving + Goal disposing +

If I wish to have things, devices or circumstances in a special functionality (for example, something is damaged and must be repaired) I can work on it for myself. The Goal is to have it at my disposal in the wished functionality. For this Goal, I am striving in an autonomous eccentric way.

+ Goal disposing

Assistance: 3 striving to a material Goal (for the Goal in the next line).

eccentric

Goal: 2 disposing of (realizing the will – see Table 1. Instinctual Goals).

Options for Realization: autonomous-eccentric.

(The material structure or the circumstances must be changed which is an eccentric intervention).

A similar activity executed by a professional performer for a customer:

Activity: "To craft (by a craftsman)"

The Assistance "performing" is for the Goal of other people: Goal "disposing of" for the other (the customer). Whereas "to bring about" is autonomous eccentric, "to craft (by a craftsman)" is heteronomous eccentric.

Assistance: 4 performing for the Goal of another (Professional work to make things in a special

wished manner).

2 disposing of (realizing the will of the customer). Goal:

Options for Realization: heteronomous eccentric. (to follow the order relating to things that are lying in an

outside field).

#### 6 **Examples of Four-Dimensional Resolution**

In the code, the main assistance is on the first position; the goal is always on the second position. On the third position is the sub assistance.

Example: Efforts to get something to his/her disposal:



striving - for the goal given in the next line. Main Assistant: Goal: disposing of - to reach the disposal of something.

Sub assistance: in connection, with getting (in contrast to build, repair etc. something)

Overall: The striving is used for getting, to have something at the disposal.

There are four variations defined by the Options for Realization for the precision of this activity:

To wait for the possibility to get something to the disp.

to have recourse to something



to grab, to appropriate something



to haggle for something



To wait for the possibility to get: To have recourse to something: To grab something:

To haggle for something:

Material Area// striving// Goal disposing// getting// heteronomous concentric. Material Area// striving// Goal disposing// getting// autonomous concentric. Material Area// striving// Goal disposing// getting// autonomous eccentric.

Material Area// striving// Goal disposing// getting// heteronomous eccentric.

## 7 Example of a Matrix in Four-Dimensional Resolution

For any of the above 25 two-dimensional combinations exists a Matrix. For example: Striving//disposing. That means to *strive* for the goal to *dispose* of something. The matrix contains 20 activities.





Table 2. Material Area//3 striving//Goal 2 disposing//

striving	di
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Sub assistance:	heteronomous /	autonomous /	autonomous /	heteronomous /
Suo assistance.	concentric	concentric	eccentric	eccentric
1 getting to wait for possibility to get		to have recourse to something	to grab, to appropriate something	to haggle for
2 disposing of	to wait for availability	to arrange, to sort, to set down	to bring about, to engineer	to finance, to get financing
3 striving	to wait for material procurement, to wait for workforces	to pre-position, to bend into shape, to prepare	to build, to assemble, to put together	to assemble further, to process further
4 performing	to wait for conditions	for conditions to fire something up to operate a machine		to handle something
5 informing	to wait for supply of technical data	to clarify data compliance	to ascertain required technical data	to check, to check functionality

The heading gives the Area and the first two dimensions of an activity in a position of the table. The leftmost column gives the third dimension. All three repeated, one of the same five Basic Activity Elements. The fourth dimension is given by the Options for Realization in the heading of the columns.

Each dimension constricts the field of possible activities more to a narrow space in direction of one term.

The complete 25 matrices of the material Area with 25 x 20 Position/Matrix = 500 positions can be seen [6].

## 8 Special Terms - Goal Related Objects - Activity Related Objects

With Objects is meant things that are useful for the drives. Many Objects are derived from the related activity (nominalized verbs). By preceding a special label, activities are transferred to a noun or agent noun.

First as Activity: "to manufacture"



Material Area//Activity 3 striving//Goal 4 performing//autonomous eccentric.

Explanation: The Goal is performing. That means professional work for other people. "Striving" is the Assistance for the Goal "performing". This combination constricts the large field of "striving" by the Goal performing. That means this "striving" relates to processes of performing. The Options for Realization is autonomous eccentric. (The material structure must be transformed which is an eccentric intervention).

Transferred to an Activity Related Object to: "manufacturing":

Material Area// ARO 3 striving// Goal 4 performing// autonomous eccentric.

Transferred to an agent noun to "manufacturer":

Material Area// Agent 3 striving// Goal 4 performing// autonomous eccentric.

The most important terms are Goal Related Objects (in the following short "Object"). With Goal is meant the Basic Goal of an activity. Goal Related Objects are those things that are usable for these Goals.

These are in the material Area:

- 1 Sources shops and services are the source for nearly all material things.
- 2 Things things that are at disposal of somebody
- 3 Locations the locations of destinations
- 4 Professions different professions for work (help) with payment
- 5 Information news and needed information.

The numbers 1 to 5 of the Goal Related Objects are synchronous to the numbers 1 to 5 of the Basic Activity Elements.

The following shows the connection from Goal Related Objects to Basic Activity Elements:

- 1 "Sources" are Objects for "getting"
- 2 "Things" are Objects for "disposing of"
- 3 "Locations" are Objects for "striving to a destination"
- 4 "Professions" are Objects for "performing"
- 5 "Information" are Objects for "informing".

These five Goal Related Objects represents the basic building blocks for material human striving.

Each of the five object directions are again combined with the (same) five directions.

#### Combining of Goal Related Objects:

## 1 Sources (Object 1)

Grocery\*, shops Object 1//Goal 1 Sources of supply

Apartment rental, furniture shop, etc. Object 1//Goal 2 Sources of things for home

Travel agencies, transport services
Object 1//Goal 3 Sources of mobility
Own work
Object 1//Goal 4 Sources of money
TV, internet
Object 1//Goal 5 Source for information

## 2 Things (Object 2)

Food, etc.

Object 2//Goal 1 Things for supply
Apartment, possession, furniture, etc.

Object 2//Goal 2 Things for home
Object 2//Goal 3 Things for mobility

Equipment for work Object 2//Goal 4 Things for professional work Newspapers, Journal, DVD, etc. Object 2//Goal 5 Things for information

## 3 Locations (Object 3)

Shops Object 3//Goal 1 Locations of sources

Home Object 3//Goal 2 Location of core of possession Train station, bus stop etc. Object 3//Goal 3 Locations of traffic connection

Workplace Object 3//Goal 4 Locations of work

Information event, theater, etc. Object 3//Goal 5 Locations of information

## 4 Professions (Object 4)

Farmer, seller, etc.

Object 4//Goal 1 Professions for supply
Property management, construction, etc.Object 4//Goal 2 Professions for possession
Bus driver, travel agent, etc.

Object 4//Goal 3 Professions for mobility
Vocational teachers

Object 4//Goal 4 Profession for professions
Reporter; actor, IT, etc.

Object 4//Goal 5 Professions for information

## 5 Information (Object 5)

Supply details

Object 5//Goal 1 Information about sources

Buildings details

Object 5//Goal 2 Information about buildings

Destination details

Object 5//Goal 3 Information about locations

Profession details

Object 5//Goal 4 Information about professions

Search engines, lexicons

Object 5//Goal 5 Information about Information

Just as the combining of Basic Activity Elements, Goal Related Objects are combinable too. The first number (the object number) is the Assistance; the second number is again the Goal.

For example, Apartment rental: Object 1//Goal 2. (Source for things)

Object 1 means source. Object 1//Goal 2. means Source for *getting* an apartment. That is an Object that is usable as home = core of: 2 *disposing of*. (Assistance Object 1// Goal 2).

For example, Vehicles: Object 2//Goal 3. (Things for mobility)

Object 2 means things for *disposing of*. Object 2//Goal 3. means things for mobility. That is an Object that is usable for 3 *striving* to a destination. (Assistance Object 2// Goal 3).

For example, bus driver: Object 4//Goal 3. (Professions for mobility).

Object 4 means professions. Object 4//Goal 3 means professions for 3 *striving* to a destination. (Assistance Object 4// Goal 3).

<sup>\*</sup>The first and core position for *getting* is what is usually most needed: food and drink.

The differentiation goes on: the one of the Basic five can be again divided by again the same five Goal Related Objects. The further differentiation depends on the Area and the special direction. Sometimes it reaches to 8 differentiation levels. See our paper [4].

An example object matrix with four-dimensional resolution related to informing about mobility:

Table 3. Material Area//Object 5 informing//Goal 3 striving//

Sub assistance:	heteronomous/ concentric	autonomous / autonomous / eccentric		heteronomous / eccentric
1 getting*	invitation	arrival time	driving time	entrance, gateway, entry
2 disposing of	driving skills	local knowledge	driver's license	bus, train, airplane, ship, ferry, boat
3 striving	travel medium extension	trip, ride	means of transport	bus stop, railway station, airport, port, jetty
4 performing	transport orders	logistics	cargo transport medium	address, delivery address
5 informing	route finding	location, direction, compass direction	path, route	path information sign, street sign, road sign; traffic radio

<sup>\*</sup>Getting in connection with striving means to get the goal = to reach the destination.

## **9** The Connection of the Motivations in the Areas

Activity 5//Goal 3 =

to contact

The implied goals in the activities and terms are uniformly defined by the Sense Machine Code 1 to 5. The Basic Activity Elements of three Areas are shown below. Each one represents the Goal of Activities.

Material Area: Activity Goal 1 = Activity Goal 2 = Activity Goal 3 = Activity Goal 4 = Activity Goal 5 =	getting disposing of striving performing informing	(Somebody wants to get a material thing.) (Somebody wants to dispose, control, determine a material thing.) (Somebody wants to reach a destination.) (Somebody works for a business goal.) (Somebody looks for information.)
Object 1 = Object 2 = Object 3 = Object 4 = Object 5 =	source thing destination profession information	(A possibility to get something.) (A Material thing that can be possessed.) (A location that can be reached.) (An ability for the business world.) (The object of informing.)
Interpersonal Area: Activity Goal 1 = Activity Goal 2 = Activity Goal 3 = Activity Goal 4 = Activity Goal 5 =	to come close to command to strive for se to help to contact	(Somebody wants to get closeness.) (Somebody wants to direct someone.)  x (Somebody wants to reach a sexual goal.) (Somebody wants to help someone.) (Somebody wants to contact someone.)
Object 1 = Object 2 = Object 3 = Object 4 = Object 5 =	love power orgasm success prominence	(for spouse, life partner.) (over subordinate.) (with sexual partner.) (with help for people who needs something.) (known to many people)
Fight/Aggression Area Activity 1//Goal 3 = Activity 2//Goal 3 = Activity 4//Goal 3 =		emy (To stay at position.) (To fend off the enemy.) ts (To hit/kill the enemy.) (To help people in need.)

Object 1 =	position	(Far or near the enemy.)
Object 2 =	strength	(Fight strength.)
Object 3 =	victory	(Victory over the enemy.)
Object 4 =	rescue	(Rescue of victims.)
Object 5 =	contact	(Hostile contact.).

Because Fight/Aggression is derived from the Genital Phase (see Figure 2.), the whole Area has the direction:

Goal 3, to reach the goal = to win the fight.

The computer takes the meaning by the coding numbers. These numbers always count to five and the Options for Realization contain the meaning. These numbering is synchronized over all Areas. This gives the computer the possibility to associate across these Areas.

This is a very important point because the human striving is based on the basic instincts that give these strivings a connection. For example, there is a connection between:

the Basic Activity Element and the (Goal Related) Object and the Basic Activity Element and finally "number 2: command" in the interpersonal Area "number 2: Power" in the interpersonal Area "number 2: disposing of" in the material Area "number 2 Anal Phase - realizing the will" of the Basic Goals (See Table 1.).

Sense machine gets an excellent overview about the deep structure of behavior.

## 10 A Sentence as Practical Example

NL: "The manager shows new goods."

Translation in Sense Machine (Instinctual Drive) Code (took from the data basis):

Manager: Material Area// Agent 3 striving// Goal 4 performing// 2 disposing of// autonomous concentric.

**Shows**: Material Area// Activity 4 performing// Goal 5 informing// 1 getting// autonomous concentric.

**New**: Material Area// Adjective 5 *informing*// Goal 5 *informing*// heteronomous eccentric **Goods**: Material Area// Object 2 thing// Goal 4 performing// autonomous eccentric.

Sense Machine can answer some questions to the example sentence:

Which kind of activity

a *manager* does? Self-determined activities in his field (*autonomous concentric*).

Striving activities that determine (disposing of) performing activities.

He is a determiner in performing processes.

What is the nature of shows? Goal: informing// getting. By performing, it is directed to others

and not to self.

What is the nature of *new*? Adjective relating to the core moment of the important

part of *informing*. (The part that is new is the important part).

What is the nature of *goods?* Things (Object 2) from Goal performing made autonomous eccentric.

Overall:

Activity of a determiner in business in connection, with informing relating to things of performing.

General: The Goal of the Activity ("shows" = Goal 5 *informing*) points to the Object (Object 2 – "goods") and the Goal from the Object (Object 2//Goal 4 *performing*) indicates the final Goal: *performing* = doing business.

Sense machine uses the drives and motivations as basis for all activities and objects as humans use; their drives and motivations for all activities and objects as basis in conscious or unconscious manner.

#### 11 Conclusions

Sense Machine is able to extract a lot of information from one single small sentence as shown in chapter 10. Sense Machine can do this because it uses the same methods as humans use it themselves.

Sense Machine translates behavior related texts and terms in a code that refers to motivations and basic instincts. The code relates to Areas, combinations of Basic Instinct Directions and Options for Realization. The essential part is that a quinary system with affiliated four points reduces the factors from thousands to 5 + 4.

This drastic reduction gives the computer an excellent simplified overview about what is happening. The computer recognizes the motivation and the Basic Instinct Direction. The Options for Realization give the type of connection from one's behavior to the behavior of other people.

It is easy to grasp whether an actor with his/her behavior is determining an interacting process or not, without the necessity to have text from the counterpart.

The Code gives the nature and the meaning of activities and terms to the Sense Machine. Further, it gives the internal connection between Basic Activity Elements and Goal Related Objects.

It is not necessary to say that there are excellent possibilities for psychological evaluation of conversations and texts. Sense Machine gives the basis for talking between human and computer because it follows the striving of humans.

The translation codes (Instinctual Drive Codes) of the sense machine are made manually. It is not possible to ascertain the codes by computer program until now. There are no text corpora that contain the terms autonomous, heteronomous, eccentric and concentric, or the Basic Activity Elements in relation to terms and verbs. We have till now 1600 activities and 1600 objects across several Main Areas and 45 Sub Areas. However, that is not enough for practical use. We work on increasing the number to 4000.

We hope for help from scientists working with neural networks to overcome this problem and increase the number of coded terms drastically.

Sense Machine does not cover everything. But Sense Machine can define many activities and terms in many different Areas, from daily behavior of people to behavior of states, from rules between members of a family to rules in a society, from quarrel to war, from games to sports, etc. That is similar, to text corpora for special domains but all ordered in the direction to basic psychological goals of humans.

It is possible to see the extent of an Area by visiting the URL "The Genetic Code of Behaviors" and "Activities of the Material Area" [5,7]. It gives an overview about the complete 4-dimensional defined activities of the material Area with its translation in Sense Machine Code.

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## **Appendix: Terms with Translation in Sense Machine Code**

## **Examples of Activity Translation in Sense Machine Code (Material Area)**

Sense Machine is able to distinguish 30 different methods "to get something" with precise definition. The Code gives Motivations (G=Goal), Assistances and Options for Realization.

	to get	G1/AC		to take from stock	2/G1/2/AC
	to ingest	G1/AE		to ask for	3/G1/AC
	to get a share	G1/HE		to fetch	3/G1/AE
	to consume	1/G1/2/AC		to take control	3/G1/2/AC
	to win	1/G1/3/AE		to stake out a claim	3/G1/3/AC
	to buy at auction	1/G1/3/HE		to snatch	3/G1/3/AE
	to demand	2/G1/AC		to procure	1/G2/1/AE
	to take	2/G1/AE		to acquire entitlement	1/G2/1/HE
	to divide	2/G1/HC		to rent	1/G2/AC
	to take away	2/G1/3/AE		to move in	1/G2/AE
	to outdo	2/G1/3/HE		to buy	1/G2/HE
	to claim	2/G2/1/AC		to have recourse to sth.	3/G2/1/AC
	to take in possession	2/G2/1/AE		to appropriate	3/G2/1/AE
	to negotiate for sth.	2/G2/1/HE		to haggle for	3/G2/1/HE
•	to store	1/G2/1/AC	•	to take the given/present	4/G1/4/HE

## In Natural Language:

I bought a house and planned to renovate the house. I told an interior architect my wishes for the design of the new house. I drove to the bank and asked the bank employee about financing the construction work.

## In Pictograms:

$$P \cdot \stackrel{\checkmark}{\triangleleft} + \stackrel{\checkmark}{\square} + \stackrel{\checkmark}{\square} \cdot GRO \stackrel{\checkmark}{\square} + \stackrel{?}{\square} + \stackrel{?}{\square$$

## **In Numbers Code:**

## **Things of Vehicle (Material Area)**

Thing Object2/G3AE = vehicle
 Thing Object2/G3/2AE = steering wheel

Thing Object2/G3/3AC = petrol
 Thing Object2/G3AE/2/G2/3AC = brake
 Thing Object2/G3AE/2/G2/3AE = gas pedal

• Thing Object2/G3AE/2/G2/4AC = motor starter, ignition

Thing Object2/G3AE/2/G2/4AE = engine
 Thing Object2/G3AE/2/G2/4HE = engine power
 Thing Object2/G3/5AE = directional signs
 Thing Object2/G3/5HE = headlights