Message Types for Rosie – The Syntax of Semantics

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Format

^arg <obj-green> : Indexed top state object in WM

^id @g1 : Semantic LTI for concept

^name green1 : Constant symbol generated by parser/perception

Message-type: failed-parse  [knows all of the words, but can’t parse the sentence.]

Example: Green the store block.

**(S9 ^message-type failed-parse)**

Message-type: yes

Construction \*-yes-T

Examples: *yes. yeah. ok.*

**Yes.**

**(S9 ^message-type yes)**

Message-type: no

Construction \*-no-T

Examples: *no. nope.*

**No.**

**(S9 ^message-type no)**

Message-type: finished

Construction \*-finished-T

Examples: *done. finished.*

**Finished.**

**(S9 ^message-type finished)**

Message type: adjective-definition

Construction: \*-ADJ-is-DP-T

If already defined (green is known to be a color), this becomes ^message-type ignore

Examples: *Purple is a color. Triangle is a shape. Large is a size.*

**Purple is a color.**

**(S9 ^arg1 @pl**

**^message-type adjective-definition**

**^predicate.id @cl)**

**(@p1 ^name purple1)**

**(@c1 ^name color)**

Message type: object-description

Construction: \*-DP-is-ADJ/DP/PP-T

Examples: *The ball is red. The ball is a sphere. The ball is in the pantry. The ball is to the right of the red sphere.*

**The sphere is green.**

**(S9 ^arg1 <obj-sphere> # was indicated-object**

**^message-type object-description**

**^predicate.id @g1)**

**(@g1 ^name green1)**

**The red triangle is on the big green block.**

**(S9 ^ arg1 <obj-red-triangle> # was indicated-object**

**^message-type object-description**

**^relation S10)**

**(S10 ^arg2 <obj-big-green>**

**^id @p1)**

**(@p1 ^name on1)**

**The red triangle.**

**(S9 ^arg1 <obj-red-triangle>**

**^message-type object-description)**

**The red triangle on the large green block.**

**(S9 ^arg1 <obj-red-triangle>**

**^message-type object-description)**

**The red one.**

**# with the context of previous object partial description – Store the block – Which one?**

**(S9 ^arg1 <obj-red>**

**^message-type object-description)**

Message type: object-description

Construction: \*-DP-is-ADJ/DP

These are “abstract” but primitive (known) objects, including “game” and “task”.

**The game is tictactoe.**

**(S9 ^arg1 S10**

**^message-type object-description**

**^predicate.id @t1)**

**(S10 ^name game)**

**(@t1 ^name tictactoe)**

**The task is done.**

**(S9 ^arg1 S10**

**^message-type object-description**

**^predicate.id @t1)**

**(S10 ^name task)**

**(@t1 ^name task-completed)**

Message type: object-description

Construction: \*-This-is-DP-T

Examples: *This is a large red block. This is red. This is to the right of the sphere. This is in the pantry.*

**This is red.**

**(S9 ^arg1 <obj-this>**

**^message-type object-description**

**^predicate.id @r1)**

**(@r1 ^name red1)**

**This is a big red triangle.**

**(S147 ^arg1 <obj-this>**

**^message-type object-description**

**^predicate.id @p1**

**^predicate.id @p2**

**^predicate.id @p3)**

**(@p1 ^name large1)**

**(@p2 ^name red1)**

**(@p3 ^name triangle1)**

Message type: what-is-question

Construction: \*-What-is-PP-QT

Examples: *What is in the pantry? What is to the left of the red block?*

**What is inside the pantry?**

**(S9 ^relation S10**

**^message-type what-is-question)**

**(S10 ^arg2 <obj-pantry>**

**^id @r1 )**

**(@r1 ^name in1)**

Message type: what-is-question

Construction: \*-What-is-DP-QT

Examples: What is this?

**What is this?**

**(S9 ^message-type what-is-question**

**^arg1 <obj-this>)**

Construction: \*-What-N-is-DP/THIS-QT

Examples: *What size is the green sphere? What shape is this?*

**What size is the green sphere?**

**(S9 ^predicate S10**

**^arg1 <obj-green-sphere>**

**^message-type what-is-question)**

**(S10 ^id @c1 )**

**(@c1 ^name color1)**

**What is on the red triangle?**

**(S9 ^relation S10**

**^message-type what-is-question)**

**(S10 ^arg2 <obj-red-triangle>**

**^id @r1)**

**(@r1 ^name on1)**

Message type: where-is-question

Construction: \*-Where-is-DP-QT

Examples: *Where is the green block?*

**Where is the red triangle?**

**(S9 ^message-type where-is-question**

**^arg1 <obj-red-triangle>)**

Message type: command

Construction: \*-VP-T

Examples: *Store the red sphere, put the green large block in the pantry, put the block to the right of the sphere*

**Clean the kitchen.**

**(S9 ^action.id @a1**

**^message-type command**

**^arg1 <obj-kitchen>)**

**(@a1 ^name cleanup1)**

## Implicit destination

**Discard the large green block.**

**(S9 ^action.id @a1**

**^message-type command**

**^arg1 <obj-large-green>)**

**(@a1 ^name discard1)**

## Implicit destination with prepositional modification

**Store the large green block on the red triangle (that is in the pantry).**

**(S9 ^action. id @a1**

**^arg2 S10**

**^message-type command**

**^arg1 <obj-large-green>)**

**(S10 ^arg2 <obj-small-red-triangle>**

**^id @p1)**

**(@a1 ^name store1)**

**(@p1 ^name on1)**

### Explicit Destination

**Put the green sphere in the pantry.**

**(S9 ^action. id @a1**

**^arg2 S10**

**^message-type command**

**^arg1 <obj-green-sphere>)  
(S10 ^arg2 <obj-pantry>**

**^id @p1)**

**(@a1 ^name putdown1)**

**(@p1 ^name in1)**

### Adjunct action

**Turn the stove on.**

**(S1520 ^action. id @a1**

**^adjunct on-lti1 #what is on-lti1?**

**^message-type command**

**^arg1 <obj-stove>)**

**(@a1 ^name turn1)**

## Two word verb

**Put down the green sphere in the pantry.**

**(S9 ^action.id @a1**

**^arg2 S10**

**^message-type command**

**^arg1 <obj-green-sphere>)**

**(S10 ^arg2 <obj-pantry>**

**^id @p1)**

**(@a1 ^name putdown1)**

**(@p1 ^name in1)**

#### Relational reference of object and explicit destination

**move the (large) orange triangle (that is) on the red triangle to the stove.**

**(S9 ^action.id @a1**

**^arg2 S10**

**^message-type command**

**^arg1 <obj-orange-triangle>)**

**(S10 ^arg1 <obj-stove>**

**^id @p1)**

**(@a1 ^name move1)**

**(@p1 ^name in1)**

**ADD**

**Is the green sphere on the table?**

**Is the red arch to the right of the blue l-block?**

**Is this green?**

**Is the green block a sphere?**

**Right is a relation.**

New verb (*grab*) – first time encounter this word.

**grab the sphere.**

**(S9 ^action C587**

**^message-type new-verb**

**^interaction-status S203**

**^message-type command**

**^new-word @N22**

**^arg1 C637)**

**(C587 ^unknown grab)**

**(S203 ^type index-word-failure**

**^word grab)**

**(@N22 ^spelling grab # This is stored in SMEM**

**^structure-type V)**

**(C637 ^id sphere-lti1)**

**-asks for category of grab.**

**## Ungrounded object**

**store the sphere.**

**(S189 ^action @O25 ^arg2 S202 ^interaction-status I62**

**^message-type command ^arg1 C575)**

**(@O25 ^id soar-store1)**

**(S202 ^arg1 @P271 ^relation on1)**

**(I62 ^target-object I60 ^type index-object-failure)**

**(C575 ^shape sphere1)**

**store the medium red sphere.**

**(S332 ^action @O25 ^arg2 S345**

**^interaction-status I73 ^message-type command ^object C1040**

**^object C1090 ^object C990)**

**(@O25 ^id soar-store1)**

**(S345 ^arg1 @P271 ^relation on1)**

**(I73 ^target-object I71 ^type index-object-failure)**

**(C1040 ^color red1)**

**(C1090 ^shape sphere1)**

**(C990 ^size medium1)**

#########Available, but not yet that useful yet.

Message type: object-action

Construction: \*-DP-VP-T / \*-PN-VP-T

Examples: *The red block fell in the pantry.*

^arg0 block1

^action fell1

^arg1 pantry1

^relation \*need to check\*