Objects and activity

Johan Trettvik

"When confronted with something new, people will employ whatever experience they may have in their efforts to understand new phenomena. And when they encounter some things that appear to be objects, *they will intuitively expect them to behave like objects*"

Bærentsen, 2000, p. 39 (emphasis added)

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Object-objective

- Object: Originally: something placed before or presented to the eyes or other senses. Now (more generally): a material thing that can be seen and touched.

- Objective: Of or relating to an object

Oxford English Dictionary

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Objects?

- Substanses with characteristic surfaces in a medium
- Attached or detached – solid or hollow
- Passive or active
- Nested in places and events

Activity?

- The relation between an "active object" and its world (environment)
- Mutual, relative and unique relation (affordances)
- Agency (goals and motives) and operations (conditions)
- Agents in places and events

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- The laws of physics are abstractions of relations of animals
- An affordance cannot be measured as we measure in physics (Gibson, 1979)
- Objects supports certain activities and does not support certain others
- Objects does not *have* function, it affords certain possibilities due to its properties in relation to the agent
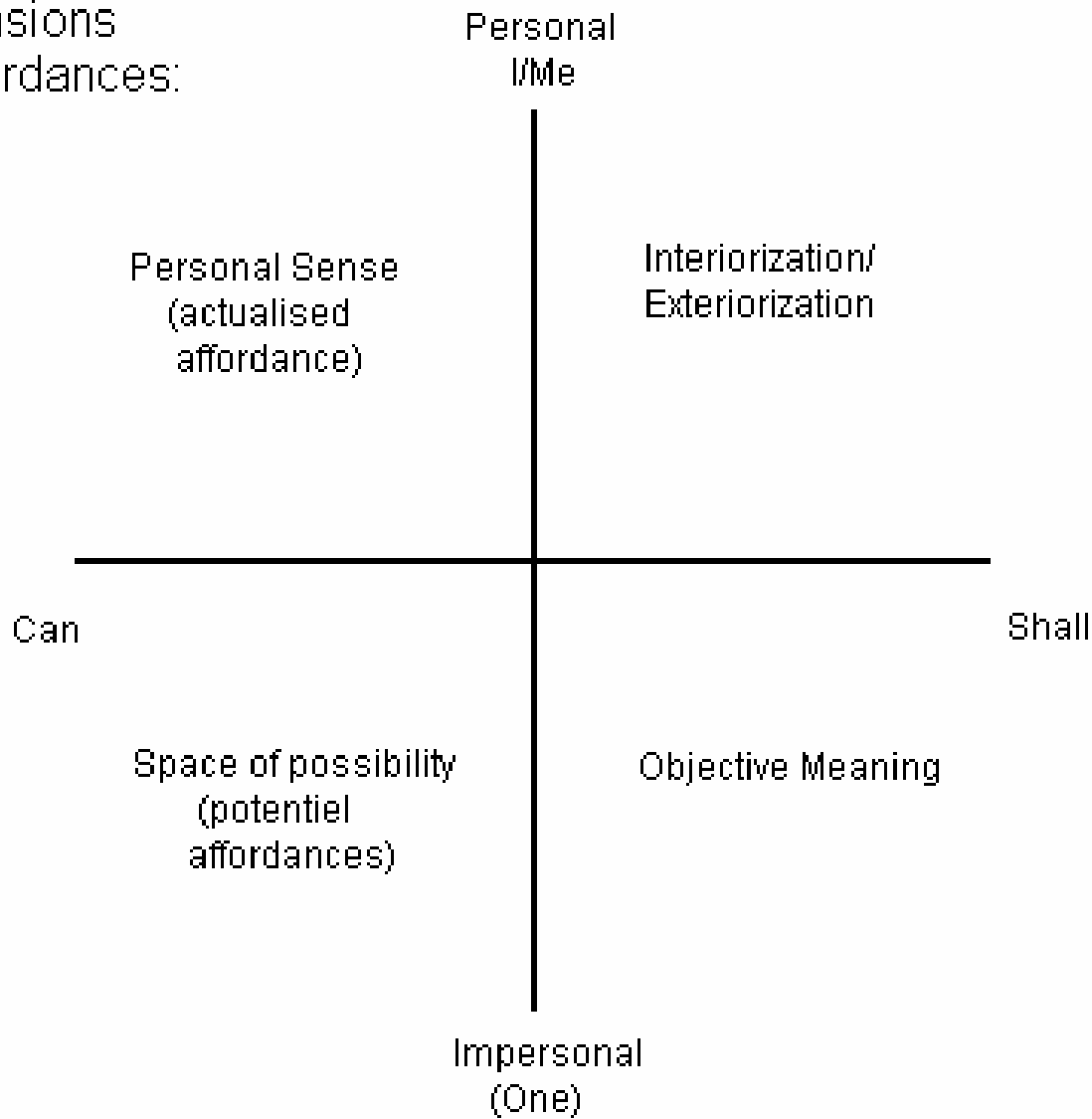- Through activity we discover and extend the possibilities of objects
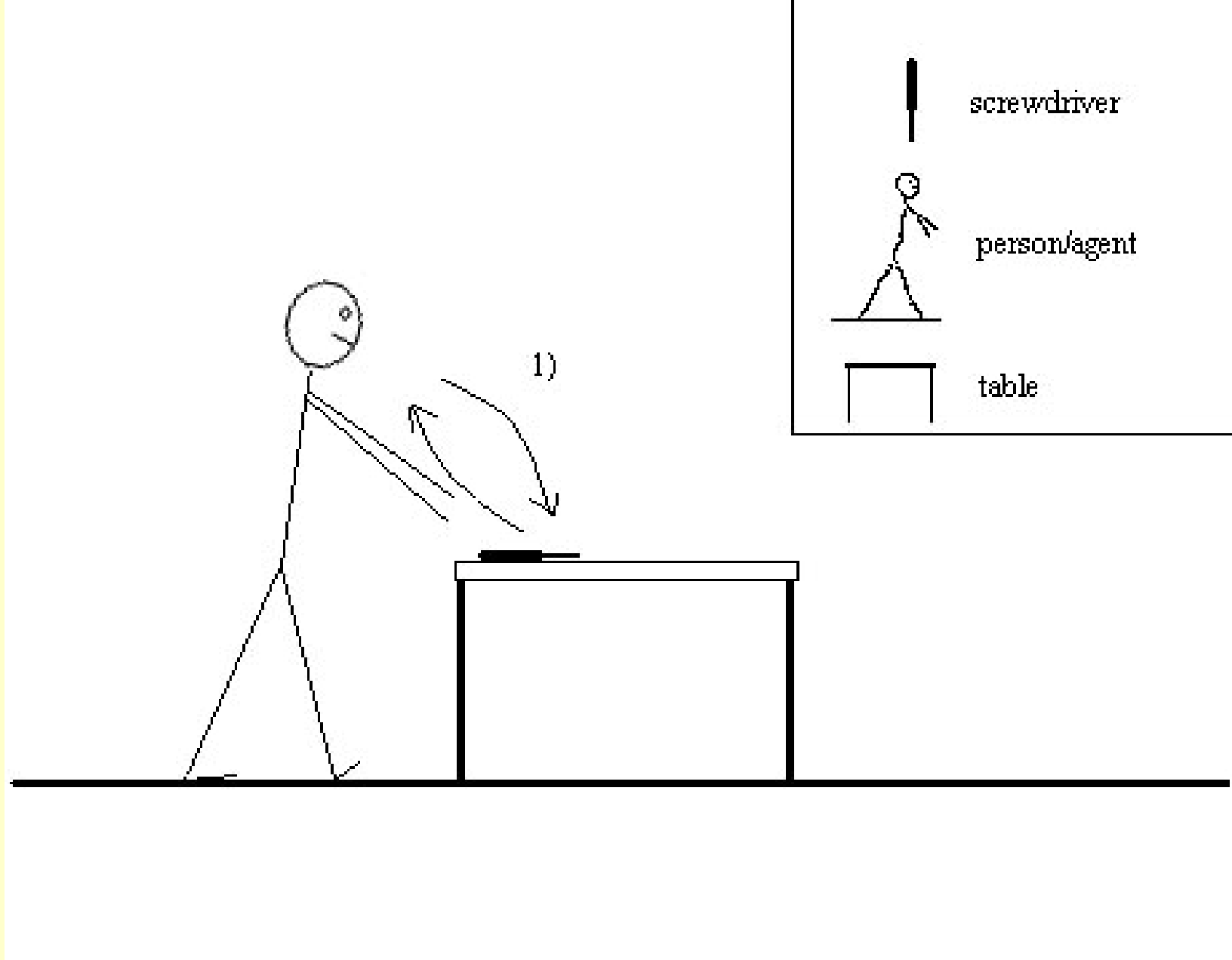
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affordances

canonical
affordances

Can

Shall
Must
Ought to

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Dimensions
of Affordances:

Personal
I/Me

Personal Sense
(actualised
affordance)

Interiorization/
Exteriorization

Can

Shall

Space of possibility
(potentiel
affordances)

Objective Meaning

Impersonal
(One)

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1)

screwdriver

person/agent

table

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3)

1)

2)

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screw

4)

1)

2)

3)

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get things

get water   cook water

100 degree

put filter, coffee,
holder on can

plug in

plug out

pour water

put things back,
get cup

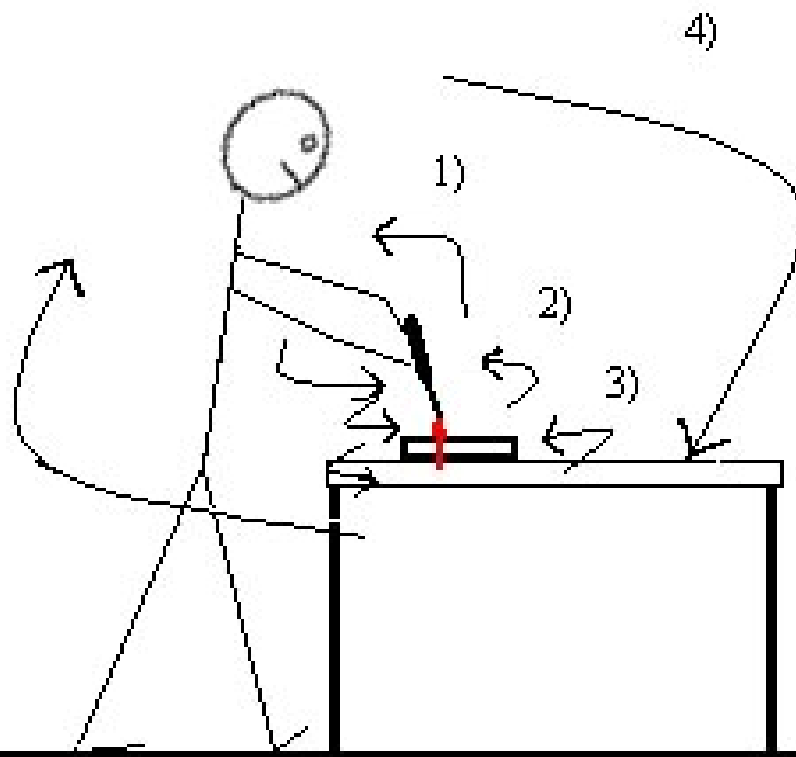pour coffee

throw filter
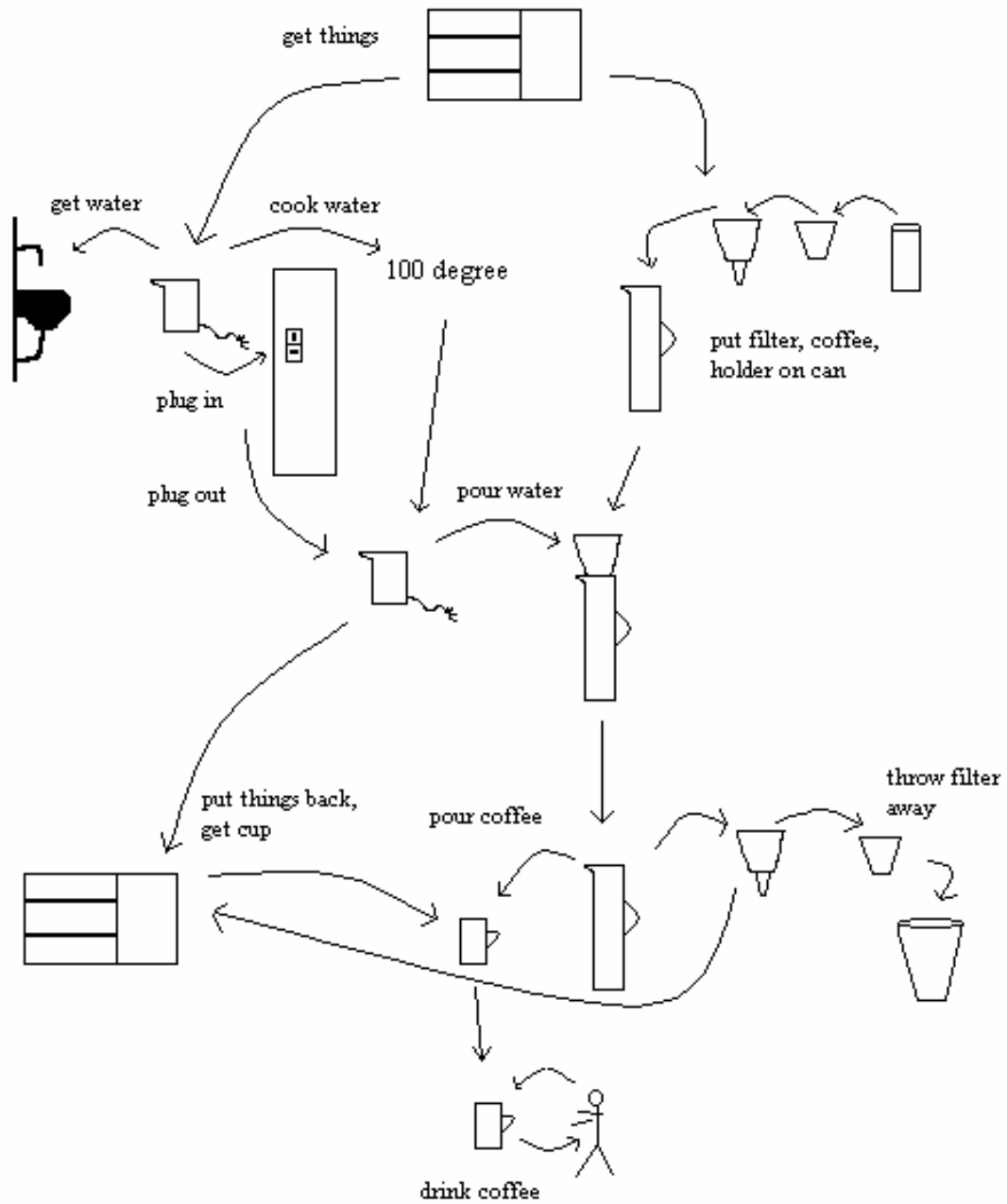away

drink coffee

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Event clusters	Object centered	Event acts	Operational affordances (A)	Functional relations between things (B)	Things-mediated relations (C)
Preparation	boiler	get boiler pour water into boiler plug boiler in	grasp-able bear-able wield-able walk-with-able	pour-into-able (contain-able) plug-into-able	
	coffee-can	get can, filter, coffee, holder put together on can	grasp-able bear-able wield-able	put-into-able fit-together-able	
	cup	get cup	ditto		
Execution	boiler	turn on boiler cook water	switch-able	heat-water-able	water-coffee
	coffee-can	pour water through holder, filter, beans into can remove holder put lid on can	grasp-able bear-able wield-able	pour-into-able fit-together-able	
Cleaning up	boiler	plug out boiler put boiler back	remove-able grasp-able bear-able wield-able		
	coffee-can	put holder back throw away filter	grasp-able bear-able wield-able		
Goal/ action	cup	drink coffee	grasp-able wield-able drink-able	pour-into-able	

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"Although adult humans have fairly sophisticated capabilities for the use of linguistic conceptual thinking in the control of their actions, the basic sense of the *underlying substantial nature of objects* seems to be an indispensible feature of non-pathological categorical thinking"

Bærentsen, 2000, p. 44
(emphasis added)

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Problems for OOP

- Language with a particular *logic*
- Requires complete specification of something that can never be completely specified
- Employment of methods (functions) as specifically relating to the objects
- "Objects" are not objects but variables with related methods in a disjunct "world" with interaction being the transmission of values
- Other?

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AOOP?

- "Objects" as passive objects with "substantial nature"
- Functions as active objects
- Events as transitions and relations
- Places as scenes for transitions (events
- Information as specification

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