

Artefact-OS

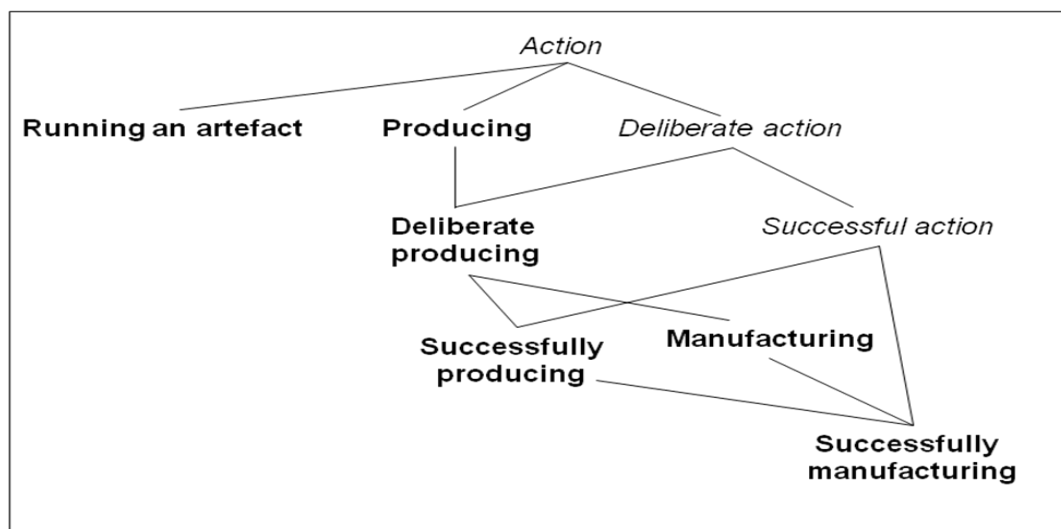
// Metadata

Name	Artefact-OS
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Has reference	<ul style="list-style-type: none"> - Bloom, P. (1996). Intention, history, and artifacts concepts, <i>Cognition</i>, 60, 1-29. - Gould, J.L. (2007). Animal Artifacts. In E. Margolis & S. Laurence (Eds.), <i>Creations of the Mind: Theories of Artifacts and Their Representation</i> (pp. 249-266). Oxford University Press. - Hilpinen, R. (1992). On Artifacts and Works of Art. <i>Theoria</i>, 58, 58-82. - Hilpinen, R. (2004). Artifact. <i>Stanford Encyclopedia of Philosophy</i>, Retrieved from ://plato.stanford.edu/entries/artifact/ - Houkes, W., & Vermaas, P.E. (2004). Actions versus functions: A plea for an alternative metaphysics of artifacts. <i>The Monist</i>, 87(1), 52-71. - Kassel, G. (submitted). A formal ontology of artefacts. - Thomasson, A.L. (2003). Realism and human kinds. <i>Philosophy and Phenomenological Research</i>, LXVII(3), 580-609. - Vermaas, P.E., & Houkes, W. (2006). Technical functions: a drawbridge between the intentional and structural natures of technical artefacts. <i>Studies in History and Philosophy of Science</i>, 37, 5-18.

	- Weir, A., Chappel, J., & Kacelnik, A. (2002). Shaping of hooks in New Caledonian crows. <i>Science</i> , 297, 981.
Version	1.0
Number of concepts (classes)	20
Number of relations (properties)	8

1) Actions

// Concepts



Producing

Meta-properties

PRODUCING is RIGID (+**R**). PRODUCING is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A PRODUCING is an ACTION.

Comment

[DEF] PRODUCING is a large class of ACTIONS including (i) ACTIONS consisting in transforming objects for getting objects of the same type but which bear some new features, and (ii) ACTIONS consisting in making (creating) new objects from materials (e.g. goods, works of art).

Deliberate producing

Meta-properties

DELIBERATE PRODUCING is RIGID (+**R**). DELIBERATE PRODUCING is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A DELIBERATE PRODUCING is a PRODUCING which is a DELIBERATE ACTION.

Comment

[DEF] A DELIBERATE PRODUCTION is a PRODUCTION which is caused and controlled by a DISTAL INTENTION. Such an intention relies on a conceptual representation of the type of action to be performed, comprising an objective (i.e. a goal) and, optionally, a means of achieving it (i.e. a plan).

Successfully producing

Meta-properties

SUCCESSFULLY PRODUCING is RIGID (+**R**). SUCCESSFULLY PRODUCING is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] SUCCESSFULLY PRODUCING is a DELIBERATE PRODUCING which is a SUCCESSFUL ACTION.

Comment

[DEF] SUCCESSFULLY PRODUCING is a DELIBERATE PRODUCING ending with an outcome that corresponds to its intended goal.

Manufacturing

Meta-properties

MANUFACTURING is RIGID (+**R**). MANUFACTURING is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] A MANUFACTURING is a DELIBERATE PRODUCING.

Comment

[DEF] MANUFACTURING consists in producing objects by machinery, especially in large quantities.

Successfully manufacturing

Meta-properties

SUCCESSFULLY MANUFACTURING is RIGID (+**R**). SUCCESSFULLY MANUFACTURING is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A SUCCESSFULLY MANUFACTURING is a MANUFACTURING which is a SUCCESSFUL ACTION. [EP/SL] Every SUCCESSFULLY MANUFACTURING is a SUCCESSFULLY PRODUCING.

Running an artefact

Meta-properties

RUNNING AN ARTEFACT is RIGID (+**R**). RUNNING AN ARTEFACT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SL] RUNNING AN ARTEFACT is an ACTION. [EP/ER] Every RUNNING AN ARTEFACT *affects* exactly one ARTEFACT *at* a TIME INTERVAL.

Comment

[DEF] RUNNING AN ARTEFACT consists in making an ARTEFACT work.

2) Functional objects

// Relations

Allows to carry out

Properties

[EP/DR & RR] A FUNCTIONAL OBJECT *allows to carry out* an ACTION.

Comment

[DEF] A FUNCTIONAL OBJECT *allows to carry out an ACTION* means that the FUNCTIONAL OBJECT is attributed the capacity of playing the role of INSTRUMENT in an ACTION.

Has for function

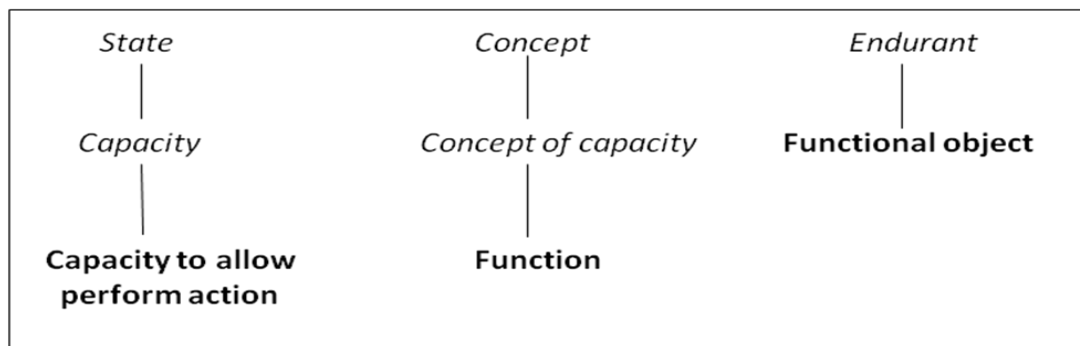
Properties

[EP/DR & RR] A FUNCTIONAL OBJECT *has for function* a FUNCTION. [EP/SL] *x has for function y* implies that *x has for capacity y*.

Comment

[DEF] A FUNCTIONAL OBJECT is assigned with a FUNCTION.

// Concepts



Capacity to allow perform action, state of functioning, functioning

Meta-properties

CAPACITY TO ALLOW PERFORM ACTION is RIGID (+**R**). CAPACITY TO ALLOW PERFORM ACTION is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A CAPACITY TO ALLOW PERFORM ACTION, or STATE OF FUNCTIONING, or FUNCTIONING, is a CAPACITY which *enables to fulfil* an INSTRUMENT ROLE.

Comment

[DEF] A CAPACITY TO ALLOW PERFORM ACTION is a capacity to play the role of an instrument during an (a kind of) action or, in other words, the capacity to contribute to the realization of a kind of action by being used in a certain way. Such a capacity corresponds to a state of functioning.

Function

Meta-properties

FUNCTION is RIGID (+**R**). FUNCTION is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A FUNCTION is a CONCEPT which *classifies* only CAPACITIES TO ALLOW TO PERFORM ACTIONS *at* a TIME INTERVAL (and, therefore, is a CONCEPT OF CAPACITY).

Comment

[DEF] A FUNCTION is an acknowledge capacity to enable the realization of a kind of action. The capacity to enable the realization of a kind of action – a CAPACITY TO ALLOW PERFORM ACTION - is modelled as a STATE borne by an entity and which exists independently of any observers. By contrast, a FUNCTION, which is modelled as a CONCEPT classifying previous STATES, is intended to be observer-dependent: it is ascribed to an entity – a FUNCTIONAL OBJECT – by an observer;

Functional object

Meta-properties

FUNCTIONAL OBJECT is SEMI-RIGID (\neg **R**). FUNCTIONAL OBJECT is NOT CARRYING AN IDENTITY CRITERION (\neg **I**). FUNCTIONAL OBJECT is NOT CARRYING A COMMON UNITY CRITERION (\neg **U**). FUNCTIONAL OBJECT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A FUNCTIONAL OBJECT is an ENDURANT which *allows to carry out* at least one ACTION or, equivalently, is an ENDURANT which *has for function* at least one FUNCTION.

Comment

[DEF] A FUNCTIONAL OBJECT is an object which is assigned with the capacity to enable the realization of a kind of ACTION.

[DIV] This property is semi-rigid because it is not rigid (there are FUNCTIONAL OBJECTS which are assigned a FUNCTION only temporarily) and not anti-rigid (FUNCTIONAL ARTEFACTS are examples of FUNCTIONAL OBJECTS which have necessarily a FUNCTION).

3) Artefacts

// Relations

Has for author

Properties

[EP/DR & RR] A PRODUCING CONSEQUENT *has for author* an AUTHOR. [EP/NMC] *x has for author y* iff there exist a PRODUCING *z* and a TIME INTERVAL *t* such that *x is a consequence of z at t* and *z has for agent y at t*. [EP/IVL] *Has for author* mutually implies *is author of*.

Has for manufacturer

Properties

[EP/DR & RR] A MANUFACTURED OBJECT *has for manufacturer* a MANUFACTURER. [EP/NSMC] *x has for manufacturer y* iff there exist a MANUFACTURING *z* and a TIME INTERVAL *t* such that *x is a result of z at t* and *z has for agent y at t*.

Has for model name

Properties

[EP/DR & RR] A MANUFACTURED OBJECT *has for model name* a MODEL NAME.

[EP/SL] *x has for model name y* implies that *x has for name y*. [EP/IVL] *Has for model name* mutually implies *is the model name of*.

Has for serial number

Properties

[EP/DR & RR] A MANUFACTURED OBJECT *has for serial number* a SERIAL

NUMBER. [EP/SL] *x has for serial number y* implies that *x has for name y*. [EP/IVL] *Has for serial number* mutually implies *is the serial number of*.

Has for version

Properties

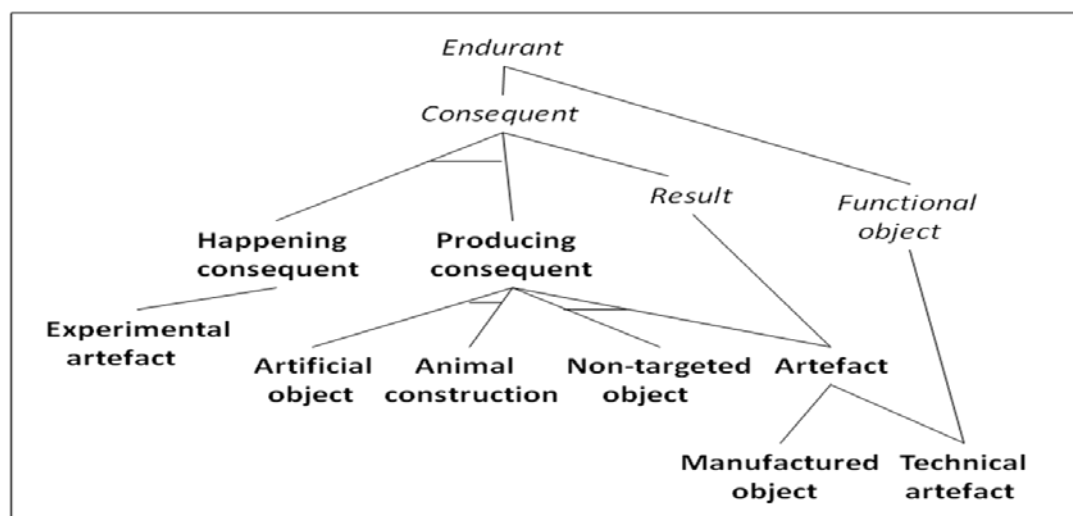
[EP/DR & RR] An ARTEFACT *has for version* a VERSION NUMBER. [EP/IVL] *Has for version number* mutually implies *is a version number of*.

Is author of

Properties

[EP/DR & RR] An AUTHOR *is author of* a PRODUCING CONSEQUENT. [EP/NMC] *x is author of y* iff there exist a PRODUCING *z* and a TIME INTERVAL *t* such that *x is agent of z at t* and *z has for consequence y at t*. [EP/IVL] *Is author of* mutually implies *has for author*.

// Concepts



Producing consequent

Meta-properties

PRODUCING CONSEQUENT is RIGID (+**R**). PRODUCING CONSEQUENT is NOT CARRYING AN IDENTITY CRITERION (-**I**). PRODUCING CONSEQUENT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). PRODUCING CONSEQUENT is EXTERNALLY-DEPENDENT (+**D**). ARTIFICIAL OBJECT and ANIMAL OBJECT *is a disjunctive sub-division of* PRODUCING CONSEQUENT. NON-TARGETED OBJECT and ARTEFACT *is a non-trivial partition of* PRODUCING CONSEQUENT.

Properties

[EP/SLD] A PRODUCING CONSEQUENT is a CONSEQUENT which *is a consequence of a* PRODUCING *at a* TIME INTERVAL. [EP/ICL] No PRODUCING CONSEQUENT is a HAPPENING CONSEQUENT. [EP/ER] Every PRODUCING CONSEQUENT *has for author* at least one AUTHOR.

Comment

[SA] PRODUCING CONSEQUENTS are divided among ARTIFICIAL OBJECTS and ANIMAL CONSTRUCTIONS according to whether the agent of their PRODUCTION is a HUMAN or an ANIMAL not HUMAN.

[SA] PRODUCING CONSEQUENTS are divided among NON-TARGETED OBJECTS and ARTEFACTS according to whether their PRODUCTION is deliberate or not (in the case of ARTEFACTS the PRODUCTION must also have been performed with success).

Artificial object

Meta-properties

ARTIFICIAL OBJECT is RIGID (+**R**). ARTIFICIAL OBJECT is NOT CARRYING AN IDENTITY CRITERION (-**I**). ARTIFICIAL OBJECT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). ARTIFICIAL OBJECT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] An ARTIFICIAL OBJECT is an ENDURANT which *is a consequence at a* TIME INTERVAL *of a* PRODUCTION which *has for agent* at a TIME INTERVAL a HUMAN (it is therefore a PRODUCING CONSEQUENT).

Animal construction

Meta-properties

ANIMAL CONSTRUCTION is RIGID (+**R**). ANIMAL CONSTRUCTION is NOT CARRYING AN IDENTITY CRITERION (-**I**). ANIMAL CONSTRUCTION is NOT CARRYING A COMMON UNITY CRITERION (-**U**). ANIMAL CONSTRUCTION is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] An ANIMAL CONSTRUCTION is an ENDURANT which *is a consequence at a* TIME INTERVAL *of a* PRODUCTION which *has for agent* at a TIME INTERVAL an ANIMAL which is not a HUMAN (it is therefore a PRODUCING CONSEQUENT).

Comment

[DEF] ANIMAL CONSTRUCTIONS are constructions made by animals for hunting, protection and processing food and thus are very similar to human artefacts. The available data indicate that the vast majority of these constructs are only the result of instinct, relying on innate sequences of instructions (Gould, 2007). However, certain animal constructs (such as the twigs that New Caledonia crows convert into hooks to extract insect larvae from trunks) are undoubtedly part of a goal-oriented problem-solving activity

(Weir, Chappel & Kacelnik, 2002) and should be considered as entities intentionally produced for a particular reason (i.e. TECHNICAL ARTEFACTS).

Artefact

Meta-properties

ARTEFACT is RIGID (+**R**). ARTEFACT is NOT CARRYING AN IDENTITY CRITERION (-**I**). ARTEFACT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). ARTEFACT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] An ARTEFACT is an ENDURANT which *is a result of* a SUCCESSFULLY PRODUCING *at* a TIME INTERVAL (it is therefore a PRODUCING CONSEQUENT and a RESULT).

Comment

[DEF] An ARTEFACT is commonly defined in philosophy as an “entity intentionally made or produced for some reason” (Hilpinen, 2004). In this definition, the term “intentionally” is to be understood in the sense of a DISTAL INTENTION, because it assumes that a conceptual representation of the type of entity to be produced exists as a component of the representation of the action to be realized. This means that an ARTEFACT corresponds to an outcome targeted by its creator and, following Bloom (1996), we consider that the creation must have been carried out successfully (an ARTEFACT is therefore the RESULT of a SUCCESSFULLY PRODUCING).

Manufactured object

Meta-properties

MANUFACTURED OBJECT is RIGID (+**R**). MANUFACTURED OBJECT is NOT CARRYING AN IDENTITY CRITERION (-**I**). MANUFACTURED OBJECT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). MANUFACTURED OBJECT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A MANUFACTURED OBJECT is an ARTEFACT which *is a result of* a SUCCESSFULLY MANUFACTURING. [EP/ER] Every MANUFACTURED OBJECT *has for manufacturer* exactly one MANUFACTURER.

Technical artefact

Meta-properties

TECHNICAL ARTEFACT is ANTI-RIGID (~**R**). TECHNICAL ARTEFACT is NOT CARRYING AN IDENTITY CRITERION (-**I**). TECHNICAL ARTEFACT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). TECHNICAL ARTEFACT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A TECHNICAL ARTEFACT is an ARTEFACT which is a FUNCTIONAL OBJECT.

Comment

[DEF] A TECHNICAL ARTEFACT is an ARTEFACT which is produced to allow their author (or another agent) to *do something*, this practical objective being assimilated to their FUNCTION. According to our notion of FUNCTION, a TECHNICAL ARTEFACT is an ARTEFACT which is assigned with the capacity to enable the realization of an action. This definition is close the artefact-dedicated theory of function proposed by Houkes and Vermaas (2004, 2006).

Non-targeted object

Meta-properties

NON-TARGETED OBJECT is RIGID (+**R**). NON-TARGETED OBJECT is NOT CARRYING AN IDENTITY CRITERION (-**I**). NON-TARGETED OBJECT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). NON-TARGETED OBJECT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A NON-TARGETED OBJECT is a PRODUCING CONSEQUENT which *is not a result of* a DELIBERATE PRODUCING at a TIME INTERVAL.

Comment

[DEF] NON-TARGETED OBJECTS are the effects of PRODUCTIONS without DISTAL INTENTION.

[EX] When writing an article to my desk, I may unconsciously crumple a sheet of paper and turn it into a ball without having chosen this objective.

Happening consequent

Meta-properties

HAPPENING CONSEQUENT is RIGID (+**R**). HAPPENING CONSEQUENT is NOT CARRYING AN IDENTITY CRITERION (-**I**). HAPPENING CONSEQUENT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). HAPPENING CONSEQUENT is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A HAPPENING CONSEQUENT is a CONSEQUENT which *is a consequence of* a HAPPENING *at* a TIME INTERVAL.

Comment

[DEF] HAPPENING CONSEQUENTS are non-intentionally created entities (even in the minimal sense of a PROXIMAL INTENTION). These include entities corresponding to unwanted “side effects” of intentional actions (e.g. EXPERIMENTAL ARTEFACTS, sawdust, hair cuttings, grass cuttings, pollution, etc.). By strictly adhering to the notion of intention, HAPPENING CONSEQUENTS also include effects of a series of non-coordinated intentional acts that cannot count as a collective intention. For example (considered by Hilpinen (1992) and then Thomasson (2003)), a path across a field that progressively results from a series of intentional acts consisting in taking the shortest route from one point to another cannot be considered to be an artefact and is therefore a HAPPENING CONSEQUENT.

Experimental artefact

Meta-properties

EXPERIMENTAL ARTEFACT is RIGID (+**R**). EXPERIMENTAL ARTEFACT is NOT CARRYING AN IDENTITY CRITERION (-**I**). EXPERIMENTAL ARTEFACT is NOT CARRYING A COMMON UNITY CRITERION (-**U**). EXPERIMENTAL ARTEFACT is EXTERNALLY-DEPENDENT (+**D**).

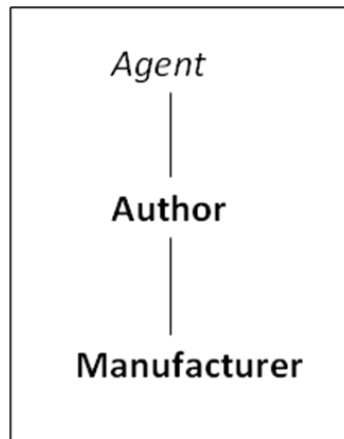
Properties

[EP/SL] An EXPERIMENTAL ARTEFACT is a HAPPENING CONSEQUENT.

Comment

[DEF] An EXPERIMENTAL ARTEFACT results from an unintended creation in the setting of an experiment and parasitizes the results of the experiment (it is irrelevant to the natural phenomenon studied and due to the experimental framework).

[EX] A shadow on an image of the lungs and which turns out to being due to the particular medical imaging technique being used.



Author, creator

Meta-properties

AUTHOR is RIGID (+**R**). AUTHOR is NOT CARRYING AN IDENTITY CRITERION (-**I**). AUTHOR is NOT CARRYING A COMMON UNITY CRITERION (-**U**). AUTHOR is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] An AUTHOR, or CREATOR, is an AGENTIVE which *is author of* a PRODUCING CONSEQUENT (and is therefore an AGENT).

Comment

[DEF] An AUTHOR is an AGENTIVE who is primarily responsible for the existence of a PRODUCING CONSEQUENT. This notion corresponds to the Dublin core notion of Creator.

Manufacturer

Meta-properties

MANUFACTURER is RIGID (+**R**). MANUFACTURER is NOT CARRYING AN IDENTITY CRITERION (-**I**). MANUFACTURER is NOT CARRYING A COMMON UNITY CRITERION (-**U**). MANUFACTURER is EXTERNALLY-DEPENDENT (+**D**).

Properties

[EP/SLD] A MANUFACTURER is an AGENTIVE which *is agent of* a MANUFACTURING *at* a TIME INTERVAL (and is therefore an AUTHOR).