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Entities and quiddities
About ontological and epistemological conceptualization for knowledge organization

Abstract
Let us say that anything we can talk about is an entity, anything we can truly say about an entity is a quiddity (Latin quid “what”). Each quiddity is in turn an entity. So objects, concepts and names (terms) are entities and have quiddities. The properties (quiddities) of objects are represented by characteristics (quiddities) of concepts, and these quiddities are concepts themselves. There are simple concepts and complex sets of concepts. Entities and quiddities can be regarded differently in different languages and disciplines; their ontological categorization depends on the respective epistemological point of view. Material objects usually represent themselves, names usually represent something else (objects via concepts), but both are part of the world outside the brain, where only individuals exist. However, names can also represent themselves and then their quiddities refer to their appearance (e.g. black letters) or function (e.g. noun), etc. Immaterial objects as “preconceptual” entities and concepts exist only within the brain. A concept, general or individual, is composed of a name concept and an object concept, which although stored in different parts of the brain (brain research) usually remain in contact with each other.

1: Aim and scope of the study
Concepts and their relations are regarded differently in different languages and disciplines, as has been shown in various models. The model discussed here will be as simple, neutral and interoperable as possible, corresponding to Gnoli’s demands on “ontological foundations” (Gnoli 2008, 140) and avoiding “the trap of reductionism” and “artificial” concepts (Poli reported by Gnoli 2007, 169). The scope of the study is the binarity of conceptualizations: there are two worlds (one inside and one outside the brain), there are entities and quiddities, ontological and epistemological points of view, two kinds of concepts, both with two components, two kinds of objects, and two kinds of material objects.

2: Method
After introducing the binarity of concepts as entities and quiddities and their connection to an ontological and an epistemological point of view, some concept models will be compared. Finally a personal model will be proposed, which has been inspired by Bühler, de Saussure, Ogden and Richards, Dahlberg, and Wüster. The term concept will be used instead of “notion”, “thought” etc.; the term object instead of “referent”, “thing” etc.; and the term name instead of “term”, “symbol” etc. When making comparisons, “names” will be written within apostrophes, CONCEPTS in capital letters, and objects in normal writing.

3: Entity and quiddity
Anything we can talk about is an entity. Entity derives from the Latin form ens, entis meaning “being”. Anything we can say about an entity, its nature or its “whatness”, is a quiddity, deriving from the Latin quid meaning “what”. Entity means that something is, quiddity means what something is: being versus whatness.

So concepts, names and objects are entities and all of them possess quiddities. They
may be realized and fenced off differently in different languages and disciplines. When abstracted the properties (quiddities) (DIN: “Eigenschaften”) of objects (DIN: “Gegenstände”) are represented by characteristics (quiddities) (DIN: “Merkmale”) of concepts, these quiddities are concepts themselves (DIN 1993, 3, 4). Since quiddities can refer to objects, concepts and names, all three kinds of entities can become “referents”. For this reason it is more adequate to use the word object rather than referent in concept theories (see also section 5).

Quiddities include all kinds of characterizations of an entity. They can be represented through parts of speech, e.g. properties through adjectives (“small”, “blue”), actions through active verbs (“work”, “coo”) etc. and all these quiddities can now be regarded as entities which possess their own quiddities, because we can say what they are. The names “bird”, “uccello” etc. are quiddities of the concept BIRD (we take the English form, but concepts are independent from language). The entity BIRD is a quiddity of the narrower concept PIGEON, which is specified by the additional concept COO. Many simple concepts such as COO, PECK or FLY (with names as “fly”, “volare” etc.) are quiddities of the entity, the actual pigeon we can see in front of us. In this case PIGEON combines several single simple concepts, it is a separate quiddity (macroquiddity) with a separate name. One and the same entity may be called “turtle-dove” by an ornithologist, “pigeon” by a child and “bird” by a linguist, and all these quiddities are correct. However, according to up-to-date knowledge, different people may find different quiddities for the same entity even though they may not all be correct. Thus an identification of ontological objects depends on the individual perception and knowledge of a human being, deriving from a personal epistemological point of view. It will differ from person to person, but can become verifiably intersubjective by assimilation through communication and rectification. Entities and quiddities can change with time. What about abstract things? The awareness of conditions, events etc. make us believe, feel and think in ways that lead us to develop “preconceptual” entities which we are able to talk about and transmit. As such entities deepen they become the basis for concepts which are now quiddities like FREEDOM OF SPEECH. In turn these are entities with a quiddity, e.g. the broader concept FREEDOM: This is the binarity of concepts. The thesis presented here is restricted to the use of the generic relation but can also be applied to other relations.

4: Ontology and epistemology

Ontology and epistemology do not exclude each other. “Can ontological and epistemological approaches be reconciled?” (Gnoli 2008, 139). Yes, they can, as the field we are entering here is knowledge organization (KO) and knowledge refers to objects through perception. Gnoli answers the question as follows:

“Knowledge is both epistemological and ontological, as it passes through human perception by its very nature, but also refers to real objects of the world having some intrinsic structure.” (Gnoli 2008, 139)

According to Poli there is a strong connection between ontological and epistemological perspectives:

“The ontological and epistemological perspectives interweave and condition each other in complex ways. They are not easily separable, amongst other things because they are procedures complementary to each other.” (Poli 2008, 5)
In spite of their reciprocal dependency we can specify what ontology can say about epistemology and vice versa:

“We should specify both what ontology can say about epistemology (a belief is a kind of object, it has parts and properties, etc.) and what epistemology can say about ontology (knowledge of the structure of objects is a kind of knowledge).” (Poli 2008, 4)

This is implicated in the “Binary Conceptualization” at the end of the essay. Entities and quiddities develop and change, as Gnoli emphasizes:

“We no longer see entities as necessarily eternal and stable, but as the product of processes and interactions with other entities.” (Gnoli 2008, 140)

Thus Hjørland, in view of the fallibility of knowledge, prefers to speak of claims:

“We should not talk about knowledge or knowledge organization, but about knowledge claims and the organization of knowledge claims. The implication is that each knowledge claim is supported by and connected with arguments, theories and world views.” (Hjørland 2008, 98)

So knowledge even when regarded as “verified” (Hjørland 2008, 97) is not static, but dynamic.

5: Conceptualizations for KO: a comparison of models

Bühler’s Organon Model, following Platon, sets the organum (tool), a metaphor for language, into the centre of a triangle using “the one” – “the other” – “about the things”. The organum does not make a difference between a concept and a name, so it includes both (Bühler 1965, 24 f.). In contrast to Bühler, Saussure concentrates on the “Vorstellung” (concept, idea) and the “Lautbild” (image acoustique, picture of a sound/name), which he does not regard as the real sound (name) – in other words “something physical” – but rather as its psychic (mental) impression (Saussure 1967, 77). “Vorstellung” (signifié) and “Lautbild” (signifiant), both psychic, form the “Zeichen” (signe, sign), that is a bilateral idea of the sign, like the two sides of a piece of paper. These two “objects” are strongly combined with and determine each other (Saussure 1967, 22). The signs form the language system (langue), while the physical utterances belong to the speaking world (parole) (Saussure 1967, 13 f.; 22). Saussure restricts his model to the brain world, he fades out the world outside the brain, which is the world of objects.

In their triangle Ogden and Richards use (known as the “semiotic triangle”) “THOUGHT OR REFERENCE” (concept), “SYMBOL” (name) and “REFERENT” (object) (Ogden 1994, 16), in other words a unilateral idea of the sign: the SYMBOL is only the material body of the sign, thus it can denote the object (REFERENT) only via the concept (THOUGHT OR REFERENCE), but not directly. Ogden justifies the use of the word “referent”, claiming that the word “thing” is restricted to material substances and the word “object” “though this is its original use, has had an unfortunate history” (Ogden 1994, 15). However, “referent” does not seem to be appropriate either, as a concept and a name, which are the other two points of the triangle, can also be referents, meaning that all three angles are entities which can be referred to (see section 3, first paragraph). “Referent” reflects a function, therefore it is better replaced by the more neutral word “object”.

Dahlberg’s “concept triangle” follows the semiotic triangle, rotated anticlockwise. “REFERENT” remains “referent”, “SYMBOL” is replaced by “verbal form” and
“THOUGHT OR REFERENCE” by “characteristics”, which are called “component of a concept” and “element of the contents of a concept” (Dahlberg 1978, 144). Characteristics are concepts themselves. They characterize entities when functioning as “simple” quiddities like the concepts PECK, FLY or COO, some of which can be fused to form a macroquiddity like the concept BIRD, but the concept COO can’t belong to it, as it is a specific quiddity of the concept PIGEON. In Dahlberg’s “model for concept construction” (Dahlberg 1978, 143) the “universe of items” must be understood as the whole world of entities, the “item of reference” is then an individual of this world, which is possibly a concept, an object or a name. The “correct statements about item” (the “characteristics” in the concept triangle) are concepts as quiddities, so there is not only one concept (macroquiddity) but there are also several “simple” concepts that refer to the item, which is the entity. The “synthesis of statements in verbal form: term or name” is regarded by Dahlberg as the name given to the concept about which the correct statements are made. However, it should be taken into consideration that all single “statements”, all of which are concepts, have a separate name, and that the “synthesis of statements”, regarded as a concept, is a separate concept with a separate name, a separate quiddity (see 3). The “usages of verbal form” or “applications” are items (entities) “in the universe of discourses”; this universe is the universe of material objects (see 3).

Wüster gives a convincing presentation of a four-part word model. Nonetheless, some points need to be supplemented (Wüster 1991, 165). The upper half of Wüster’s model presents the world of concepts, the brain, where the language system (Saussure: langue) is located. The lower half is the world outside the brain where there are only material individuals and where speech (Saussure: parole) takes place. In the concept world Wüster’s “Zeichen” (sign) is a unilateral idea of the sign, “Zeichen” is only a form, which is related to Wüster’s separated “Bedeutung” (meaning). “Zeichen” has to be a general concept of sound or name, which abstracts the two (marked) individual concepts of sound or name, located on the border of the world of material individuals. In comparison to “Zeichen” Wüster’s “Bedeutung” is a general concept for meaning, the abstraction of two (marked) individual concepts of the meaning – but of what? In the lower half of his model, the physical world outside the brain, Wüster mentions only speech individuals. He tries to present the contrast of language system and speech. However, this is where the world of all individual material objects also lies, for where else should they be found? So are there two kinds of objects? Yes, there are. The materialized names (words, sentences etc.) are individual objects which usually, via concepts, represent something else (aliquid stat pro aliquo), and the other objects usually represent themselves.

6: A personal proposal: the binary conceptualization

Inspired by Bühler’s, Saussure’s, Ogden’s and Richard’s, and Dahlberg’s models, and especially by Wüster’s four-part word model, the following model is presented:
The left side of the model represents the brain world containing two kinds of individual and general concepts which together form a concept. This concept has a broader concept. Immaterial objects are also represented here. The right side represents the world outside the brain (outer brain world), containing two kinds of individual material objects, one usually representing itself (chair etc.) and the other usually representing something else (name “chair” etc.). The connection between these two kinds of objects is only possible via concepts in the brain world. It should be taken into account that a name, when functioning as a quiddity, usually represents something else, but a name can also be (alongside chairs etc.) a material object representing itself, in which case its quiddities belong to a metalanguage (“chair” is a noun etc.).

Taking two chairs as individual material objects (entity $e1$ and $e2$) representing themselves: at the point, where the human perception takes place (see position of circles on borderline), the impressions of the material objects are converted by the brain into the individual object concepts CHAIR 1 and CHAIR 2. These are the individual quiddities for the entities $e1$ and $e2$. The entity $e1$ is CHAIR 1 (quiddity) etc., embedded in time and space: the entity $e1$ (individual object) is THIS CHAIR (individual object concept) etc.: we relate the quiddities THIS CHAIR and THAT CHAIR to the entities $e1$ and $e2$. 
The next step we regard THIS CHAIR and THAT CHAIR as entities and we conclude: THIS CHAIR is A CHAIR and THAT CHAIR is A CHAIR, both are members of the class CHAIRS. Now A CHAIR is the general object concept and the quiddity of the two individual object concepts. The general object concept A CHAIR, now regarded as an entity, is connected to the general name concept “A CHAIR”, which is the quiddity of A CHAIR and can be individualized, in a specific situation, as individual name concept “THIS CHAIR” and “THAT CHAIR”, which are represented by the individual material names “this chair” and “that chair”, spoken or written differently in the world outside the brain.

In turn, the hearer or reader is confronted with a name representing something else: e.g. “chair”. He or she recognizes the name as the quiddity of a concept. As mentioned before, at the point where the name (spoken or written) enters the brain world, it is physiological and becomes psychic. Two or more similar names (slightly different in pronunciation or writing) are taken in as individual name concepts (see circles), abstracted to the general name concept, e.g. “A CHAIR” (called “Zeichen” by Wüster), and connected with the general object concept A CHAIR. (Other kinds of expressions are not treated here.) Thus the “traditional” object has to be regarded as two different kinds of objects, one (also names) representing itself and one (names) representing something else; the “traditional” concept has two components, namely the object concept and the name concept which, although stored in different parts of the brain, remain in contact with each other. This seems to be proven by brain research:

“What’s more, it also appears that the brain stores certain kinds of nonverbal knowledge in specific regions or neural networks and the words or phrases that correspond to these concepts in other storage bins. This kind of fragmented storage of different parts of language, and of the concepts represented by a word or phrase, is the best explanation available for the often puzzling consequences of strokes and brain injuries. It is not uncommon for stroke victims to be unable to verbally identify an object shown to them, yet still “know” what it is.” (Davis 1997, 189 f.)

Immaterial objects such as beliefs, feelings, “preconceptual” thoughts etc. are parts of the brain world. They become finally represented as individual object concepts and abstracted to a general object concept (e.g. HELP) which is connected to a general name concept (“HELP”, “HILFE”, “AIUTO” etc.) etc. A concept with its two components has a broader concept as a quiddity, which again has two components: a broader general object concept and a new general name concept. There is no “broader” name concept. The communication between speaker and hearer functions from brain to brain only via the names in the world outside the brain. Generic relations have been used to demonstrate this thesis, however this thesis can also be applied to other relations.

7: Conclusion and desiderata
The binary conceptualization seems to be an operable transdisciplinary approach which facilitates the communication of KO, especially concerning paradigms and conceptual systems. It will have to be applied in different areas for its usefulness to be proven and improved. Initiatives have already taken place through the use of physical formulas \(E = mc^2\) as well as performative utterances and metaphoric speech. Maybe binarity can facilitate digital handling.

References


