

# **The Relationship between Metapattern in Knowledge Management as a Conceptual Model and Contragrammar as Conceptual Meaning**

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## **Abstract**

In this paper we wish to examine a deeper issue underlying conceptual modeling, namely what could constitute conceptual meaning. Accordingly we have chosen to compare an analysis of “Metapattern” (Wisse, 2001), with “Contragrammar” (Haynes, 1999). We note that there are distinct similarities between Metapattern and Contragrammar at the stage of (1) an exchange of redundancy, and (2) flexibility through relative concepts. Conceptual modeling is an important aspect of Knowledge Management, and, clearly, as concepts vary with ‘situations,’ conceptual modeling must accommodate those variations. From this paper, it is hoped that, by examining features of Metapattern in relation to Contragrammar, we can thereby see why ‘situations’ entail meaning, and why Metapattern works as a model of behaviour, and why Contragrams can capture an essential feature of that ‘situational’ meaning.

## **Introduction**

Metapattern (Wisse, 2001) is designed to encompass variety in agreement with various ‘situations.’ It essentially shifts atomicity to particular behaviors (Wisse, 2002b). Metapattern is sketched here with an emphasis on assumptions. Contragrammar (Haynes, 1999) is explicated via a shift from the human perception situations to a human conception of the meaning of that ‘situation.’ Firstly we shall examine Metapattern.

## **Metapattern: An exchange of redundancy**

Social psychology instructs about the situational nature of behavior (Dewey, 1938; Carr, 1955). An actor, or agent, is assumed to reside in various situations. Hence variety exists in the actor’s behavior. In fact, a particular behavior completely corresponds with the actor *as far as a particular situation goes*. Adding situation and behavior therefore turns inside-out the treatment of an actor as entity/object. Only an actor y’s barest identity remains necessary

and sufficient for relating a situation  $x$  and a behavior  $z$  (Figure 1.a). The whole of actor  $y$  is now reflected by his particular behaviors *across relevant situations* (Figure 1.b).

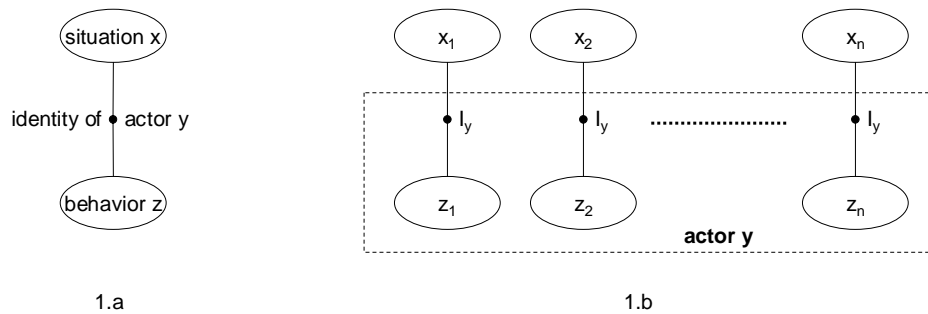


Figure 1: The conceptual triad of situation, (actor's) identity and behavior.

Please note that juxtaposition of behaviors rests on repeating the — reference to the — actor's identity. An instance of identity exists for every relevant situation, i.e. where the actor has a particular behavior. Through repeated identities, differences (particular behaviors) are reconciled with unity (one actor). In traditional modeling (entity-attribute-relationship, subject-predicate, object orientation, object-role, etc.), repetition of identity shows up as redundancy and is therefore ruled out. Metapattern, however, accepts repeating identities for situations as the deliberate price for avoiding hierarchical decomposition strictly within the boundaries of one actor itself.

### Metapattern: Flexibility through relative concepts

Metapattern's compactness and flexibility comes from the assumption that situation, (actor's) identity and behavior are relative concepts. A rigorous set of modeling constructs applies throughout. Following the spatial orientation of Figure 1, decomposition can proceed both up and downward. Upward, for example situation  $x_1$  can itself be considered as constituted by several actors' identities — presumably all different from  $I_y$  — appearing in a correspondingly less determined situation. Introducing levels, the original situation  $x_1$  may be designated as situation  $x_{m,1}$ . The result of one step of upward decomposition is shown in Figure 2.

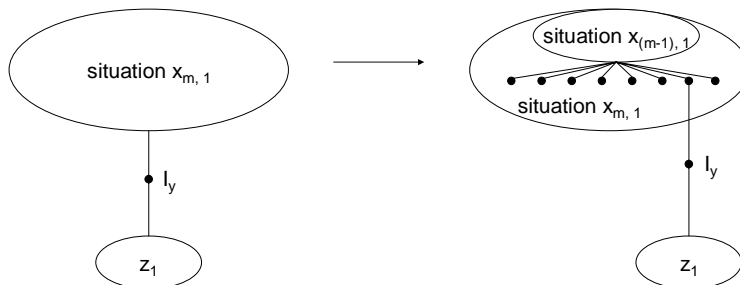


Figure 2: Upward decomposition.

In Figure 3, the right hand side of Figure 2 has been adapted to indicate what after one step of upward decomposition now count as situation, identity and behavior.

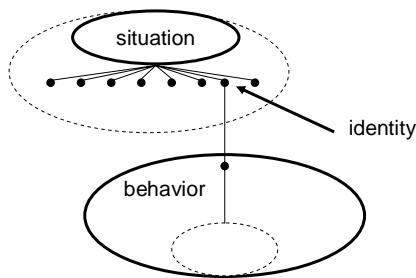


Figure 3: A shifted configuration of situation, identity and behavior.

Reading these figures in reverse order gives an impression of downward decomposition; the original identity is encapsulated within a more determined situation while the original behavior is decomposed into identities, each with situational behavior at a lower level of the conceptual model. There are no limits to upward and downward decomposition. A upper boundary condition must be formally set, however. It reflects the model's horizon, corresponding to the most generally accounted for, least determined situation. In metapattern's visual language (Wisse, 2001) it is a thick horizontal line. A conceptual model takes on the shape of a lattice of nodes. Some nodes are connected to the 'horizon.' Different instances of equal identity may be connected laterally to indicate that an actor's behavior in one situation is invoked from — his behavior in — another situation.

### **Accounting for (individual) differences in Knowledge Management**

Metapattern readily supports management-of-knowledge where knowledge is considered the result of objective analysis. But, to what extent should knowledge management allow for human differences in daily practice? It is especially when account must be taken of essential differences that metapattern supports necessary and sufficient elaboration while maintaining cohesion. Does the experience of one employee provide the appropriate model of behavior for another employee? Is a report of an experience rightly called knowledge in the sense of useful? Should conditions of usefulness be made explicit?

It might be that the careless assumption of equality, similarity, and so on, between situations is risky. In such cases, it is recommended that situations are explicitly classified with regard for individual involvement. This requires the — identity of the — reporter to be stated, too, as part of the situation of the experience-turned-report for knowledge management. In addition, the reporter's motives might be relevant, suggesting a perspectival turn (see below). Metapattern suggests an actor invokes a particular behavior as befitting a particular situation. The patterns an actor is primarily recognizing are therefore situations. Recognition is not merely passive, though. An actor, artificial or not, would be overwhelmed when it lacks a pattern of its own to establish situations-as-patterns. Traditionally, an actor's self-directed activity is attributed to goals. A goal is seen as different in kind from, for example, a behavioral specification that should be executed to accomplish it.

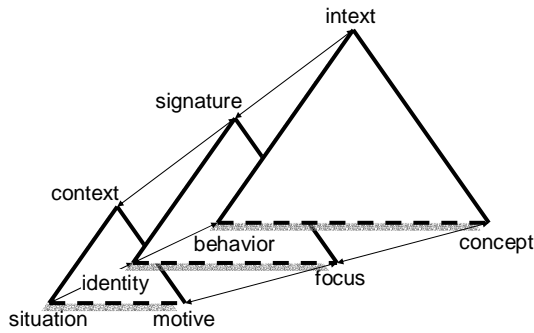


Figure 4: Semiotic ennead.

An extension of the semiotic triad (Peirce, 1906) into an ennead (Wisse, 2002a) argues for a relative status of goal, or motive. In Figure 4, the term ‘motive’ is preferred. In semiosis, an actor constructs a sign from a configuration of — again, the relative concepts of — motive, focus and concept. In short, he brings a perspective to his own observational behavior. The resulting sign is transformed in cycles of semiosis into another configuration of motive, focus and concept. That is, semiosis changes the actor’s perspective, resulting in one particular behavior or another.

### **Contragrammar: An exchange of redundancy**

In this section a consistent notation is presented for the movement from perception to conception: from the perception of content (implicit stage) through to the experience (or re-experience) of forming a conception (explicit stage).<sup>1</sup> The exchange of redundancy occurs at the level of perception, until the mode of conception is reached.

Consider the following statement: The culture of consumption is the consumption of culture<sup>2</sup>. The point being made is that a culture ideally emerges out of non-selfish motives. It arises out of the common good and common interests of a group of people. If the group of people turn on themselves and begin to treat each other as objects to be “consumed” rather than as individuals deserving respect, then the original culture will begin to disintegrate. Similarly if a culture naturally emerged out of common interests that were nourished and supported by a group of individuals began to be exploited and “consumed” by the individuals, rather than being supported in an environment of learning, then again the culture would begin to disintegrate.

The above statement has the following structure: The X of Y is the Y of X, labeled by Haynes (Haynes, 1999) as a Contragram. The structure performs its function as an idea in a holistic way. In other words, the parts, the X and Y only function as the contents of a wave-form. They are the X and Y drops in the oceanic wave-form of the Contragram. It is interesting to note that Peterson makes the comment that interpreting wave-forms in mathematics in relation to “infinitely many measurements with infinite precision” in the context of how “two different objects appear alike in every measurable way” is still yet to deal with tough problems. (Peterson, p 101, 1998).

<sup>1</sup> This notation was first presented by Haynes in 1990 and published in 1991. See (Haynes, 1991). See also (Haynes, 1999).

<sup>2</sup> Contributed by B.C.Birchall.

In the comprehension of this particular Contragram we begin with the perception of (the) X of Y and continue to the Y of X. It is only in the return to the X of Y that the perception-in-gestalt begins. The third scan is experienced as the whole Contragram. See figure 5.

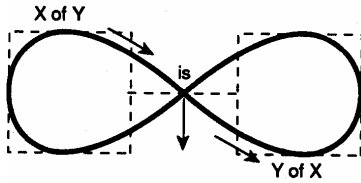


Figure 5: The Implicit Stage of the Contragram: perception (of content).

The notion of the wave-form is all the more reinforced by the fact that X and Y cannot be substituted by words that represent perceivable things. For example, consumption is meant in a metaphorical sense; culture is elusive, but is nevertheless real.

The process can be presented as follows:

- (a) At the level of perception: the terms (in lowercase) are represented as the x of y is the y of x. At this level no conception is apparent. The terms, indicated in lowercase, are functioning as words and no more than that.
- (b) The reader now completes the scan of perception. It may be that one term is recognised for its conceptual capacity in which case the Contragram becomes, notationally, the X of y is the y of X.
- (c) On the third scan a shift to conception is made and the Contragram is recognised as meaningful, and the notation becomes the X of Y is the Y of X.

Further analysis of the above process reveals that on the surface of the Contragram (at the level of perception), there is redundancy in “the x of y is the y of x.” Secondly, there is certainly, on the surface, ambiguity, that is, how is x of y apparently differentiated from the X of Y? But if the shift is made to conceiving then the ambiguity is (like the launch pad) left behind. It is left behind because redundancy is found in objects to be logically dissected or analysed, and not in concepts. This letting go then allows the apparent ambiguity to diffuse itself in a shift in seeing that takes in a gestalt (the states of which are neither ‘parts’ that repeat, but are simply contained in that flux of the wave-form). This can be regarded as a discourse that shifts from death, that is, the death of the object-as-perceived to the life-of-the-gestalt as conceived. A conception which returns again to reconstitute or resurrect that death as Life, which is to say, to resurrect that death as meaning, or in other words, gives meaning to that apparently ambiguous content. This is the sense by which Contragrammar is a consistent notation for the enunciation or resurrection of meaning. The fact that Contragrammar is non-logical does not entail that it is illogical.

### **Contragrammar: Flexibility through relative concepts**

The Contragram makes sense by succeeding to bring together apparently conflicting relative terms in the form of a shift to conception. Once the shift is complete apparent conflict is resolved. And it is the gestalt of all terms together, which in their being brought together (the journey of the return-to-the-beginning) either metamorphoses their content into form (thus giving the Contragram meaning; enabling its be-ing a Contragram), or the terms are ‘frozen’ at the level of content, in which case we have no Contragram. Or the ‘shift’ is possible, but the

conception (on the part of the reader) is lacking. Thus the Contragram is a pointer to a sense of form, which has the following apparently contradictory or paradoxical presentation:

**Further Examples of Contragrams<sup>3</sup>:**

Here are two Contragrams by John Haynes: (1) The creation of nature is the nature of creation. (2) The awareness of consciousness is the consciousness of awareness. And two Contragrams by Pieter Wisse: (1) The mastery of practicing is the practicing of mastery. (2) The nature of nurturing is the nurturing of nature. It may be of assistance to briefly explain Contragrammar (the 3 stage process of the Contragram philosophically as follows (paraphased from Haynes, (Haynes, page 157, 1991), see also figure 6). In the two-part Contragram, the terms ‘X’ and ‘Y’ must be co-extensive. The Contragram is a ‘logic’ of universals; a ‘logic’ of meaning; a ‘logic’ of the subject becoming meaning, i.e. a ‘logic’ in which the subject/predicate distinction is overcome, and in that overcoming, becomes a Real term. Whereas, the logic of either/or (traditional logic, symbolic logic), will always particularise the predicate through the subject. For example, assume we are looking at a certain table which is square. So we can assert: the table is square. And we could conceive of its contradictory: the table is not square. But squareness is not tableness even though squareness happens to be true of this particular table. In the Contragram, we have no subject, we have instead a ‘non-logic’ of the concept, implicitly (at the level of perception) in the x of y is y of x, becoming explicit in X of Y is the Y of X. In this case, the X of Y is the Y of X is not a fact (i.e. it does not exist independently of its being conceived) but, instead, is its being conceived (i.e. what is known as its being known). Some person, Z, perceives that S is P, and here we have two distinct facts:

- (a) Z is perceiving that S is P, which is either true or false;
- (b) S is P, which is either true or false.

But when Z conceives S AS P, we have one fact: (And herein lies the key to comprehending and creating new Contragrams: the “X of Y” is conceived of as “X As Y”, not the as of comparison, but the As of revelation (see Haynes 1999c)).

Z is conceiving S AS P, which is either true or false.

Which Contragrammatically, is expressed as follows:

Z conceives (X of Y AS Y of X), and this is either true, i.e.

[Z conceives (X of Y AS Y of X)] or false, i.e. NOT [Z conceives (X of Y AS Y of X)].

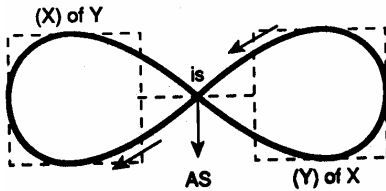


Figure 6: The Explicit Stage of the Contragram – arriving at meaning: Conception (or form).

<sup>3</sup> For a more thorough treatment (and examples) of Contragrams see Haynes (Haynes 1999).

## **Convergence of Metapattern and Contragrammar: the Concept**

From Contragrammar we have noted that when we perceive an object the object necessarily needs to be in view, or at the very least presented for the perception process, and in this respect the content of the object is a requirement. On the other hand, when we conceive of an object, or an idea, the form or forming of an object or idea is of paramount importance. This difference between content and form is central to the notion of a concept. In comprehending a concept it is the form that we are apprehending, rather than the way in which the concept is presented. Although the way in which the concept is presented is also crucial. However, it is not crucial after a shift to the concept (idea) itself has been made. Let us say that the presentation of the concept or central idea is like a launch pad, which is critical for launching, but not directly related to the comprehension of the space-craft once the space-craft has been launched (once the idea has been grasped). For example, in mathematics if we are presented with a solution to some problem we firstly perceive the equations or mathematical proof but to conceive of the central idea or theory that the equations are capturing we have to experience or re-experience the idea that the equations are pointing to. Similarly in philosophy, the words, which capture a certain point of view, are initially merely perceived. The initial perception then gives way to, or changes into, a state of conception as the reader comes to a comprehension of the meaning (or at the very least validity) of what is being presented or read. From our analysis of Metapattern, we can see why formal knowledge management is worth substantial efforts. Suppose, when documenting an experience, a reporter is asked to include more information than he can realistically be expected to provide. That would immediately make using what was nonetheless recorded as knowledge extremely risky. Wouldn't a superior alternative not be a simple personal reference, to be called upon only when a particular need arose? Conceptual models should assist making practical judgements before incurring the bulk of costs. Again, Metapattern doesn't impose any conceptual limits upon modeling knowledge even when individual differences must be included. The relative nature of its key concepts, situation, identity and behavior, guarantee open-ended opportunities for decomposition both upward and downward. Precisely because conditions for rigor are secure, the question of relevance deserves priority. This is precisely why, for the present, Metapattern is a robust example of the essential inner conceptual workings of Contragrammar, yet is able to apply in real life situations without imposing any conceptual limitations which clearly Contragrammar does in terms of the peculiar nature of the X and Y terms used. In the following consideration, we refer to bi-contragrams (2 terms) as explicated above, and poly-contragrams entailing multiple terms using Metapattern itself to illustrate how Contragrammar could be extended from 2 terms to multiple terms. This will be presented during the workshop session for this paper.

## **Conclusion**

Given the redundancy similarities between Metapattern and Contragrammar and how each can achieve flexibility through relative concepts we gain a sense of how Contragrammar is a conceptual way of explaining some important aspects of Metapattern. As knowledge management advances to cover ever more complex human endeavors it inevitably needs to acknowledge what constitutes conceptual meaning. As we have seen from an explication of Metapattern, the nature of the challenge is similar to empowering an artificial actor with

behavioral variety. But inevitably if Knowledge Management is to effectively – meaningfully - move to Conceptual Management, a thorough understanding of what constitutes the movement from perception to conception as identified by the Contragram must be embraced more fully in Conceptual Modeling.

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