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# Representing Academic Disciplines on Academic Book Covers

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**Abstract:** With the rapid advancement of technological inventions, visual communication has become a scientific field that has greatly impacted the design of book covers, which were, mainly used to keep the pages of a book together. This study investigates the meaning(s) that visuals on academic book covers instigate in viewers. It primarily focuses on the interactions between the visual image and the book title, and how such an interaction yields in more "contextual implications". It also examines the dominant visual images on academic book covers, viewers' ability to tell the academic discipline of the book from the visual, the connection between the book title and the visual, and the impact of the academic discipline on the choice of the visual image. Results show that understanding the meaning of images needs to be always related to, or in some way dependent on, verbal texts to provide a more substantive interpretation of the meaning of visuals on academic book covers. Results also suggest that that the visual is subordinated in terms of its semiotic function to the verbal text, which it illustrates. Results further indicate that visuals on book covers are driven by the nature of the academic discipline of the book.

Keywords: Book covers, relevance theory, semiotics, visuals and culture, pragmatics, lexical signals.

#### 1. Introduction

The history of visual communication dates back to thousands of years. Ancient civilizations, the old Egyptians, for example used various drawings to communicate things about their daily life activities, traditions, customs, etc. The science of visual communication, designs and illustrations has extremely advanced with the introduction of technological inventions, and visual design has become a well established field in its own right (Kress and Leeuwen, 2006). Currently, there are many who are specialists in visual communication. This field has strongly impacted the book cover design area. As a result, we see that book publishers compete in recruiting renowned and creative visual illustrators to design book covers for their publications. Thus, a book cover, which for hundreds of years was regarded as a decorative

protective covering used only to bind together the pages of a book, has became more than just a decorative protection for the book (Cope and Phillips, 2006; Matthews and Moody, 2007). Therefore, book publishers, taking into consideration the role the book cover plays in advertising, and communicating information about the text inside, hire illustrators who are entrusted with the design of book covers with the view of alluring and attracting prospective readers into buying these books. Kress and Leeuwen (2006) note that sign makers

choose an aspect or bundle of aspects of the object to be represented as being criteria, at the moment, for representing what they want to represent and then choose the most plausible, the most apt form for its representation (p. 13). In this regard, Jones (2007) and O'Connell (2010) note that, in spite of the adage to never



a book by its cover, most reading decisions are based on a book's cover art. O'Connell (2010, p. 2) argues that "visual representation, symbolic imagery, and color combinations on book covers" are to allure prospective readers into these books. She elaborates that readers interact with visuals and negotiate meaning of visuals on book covers. In her analysis of seventy young adult literary book covers, she mentions "... most of the covers feature a human representation rather than an inmate object such as a table or some kind of symbol or a scene such as a city skyline or a pastoral countryside (p. 28.)". In the same vein, Drew and Sternberger (2005) point out that book covers are for more than book protection purpose; they propagate for the book and provide information on the academic discipline the book is on. In other words, book covers entail images of the books' contents. Similarly, Rosner (1949) states that the choice of a book cover, whether typographical or pictorial, is motivated by the type of book and its contents. Along the same lines, Kress and Leeuwen (2006) consider visuals a type of communication used to create meanings. Likewise, Bordo (2010: 56) points out that: The study of visual rhetoric teaches us that we cannot cast off the illustrations on the book covers as trivial or harmless; an image on a cover is "never just a picture"; they often reflect embedded cultural conventions and ideas of what the artist or photographer believes life should be like (cited in O'Connell, 2010:56). Nikolajeva and Scott (2000) aptly adduce that assigning meanings to visuals on book covers is the result of the interaction between two media, words and visuals. They argue that words and images can interact in a number of combinations as follows: In symmetrical interaction, words and pictures tell the same story, essentially repeating information in different forms of communication. In enhancing interaction, pictures amplify more fully the meaning of the words, or the words expand the picture so that different information in the two modes of communication produces a more complex dynamic. When enhancing interaction becomes very significant, the dynamic becomes truly complementary. Dependent on the

degree of different information presented, a counterpointing dynamic may develop where words and images collaborate to communicate meanings beyond the scope of either one alone. An extreme form of counterpointing is contradictory interaction, where words and pictures seem to be in opposition to one another. This ambiguity challenges the reader to mediate between the words and pictures to establish a true understanding of what is being depicted (pp. 225–226).

Likewise, Salter, as cited in Sonzogni (2011, p.23), enumerates seven types of "book cover designs based on the degree of imagery employed as well as on a scale of interpretation of the text from most literal to most abstract." These are:

- 1. Typographical covers that contain no images;
- 2. Typographical covers that contain elements of ornamental design;
- 3. Pictorial lettering;
- 4. Pictorial lettering accompanied by pictorial elements;
- Pictorial design suggestive of the book contents;
- 6. Pictorial design that composes symbolic and abstract imagery; and
- 7. The poster design.

This supports the assumption that book covers are not only meant to act as protection for books, and that communication takes place as a result of the interaction of words (i.e. book title) and images (i.e. book covers). Another revealing study, conducted by Serafini, Kachorsky and Goff (2015, p. 107), argue that reading comprehension strategies and instructions are represented on the covers of professional development book designed for teachers of English. They note that "relationships among various modes in a multimodal text produce more elaborate and different meanings than those suggested by either mode alone"

However, the above mentioned scholars carried out their investigations on a textual



basis, to the best of my knowledge, paying little or no attention to the consumers of those texts to verify the validity of their claims (i.e. whether the presence of visual images reflect and reveal the contents of the books they illustrate and whether readers are able to make the connection between the visuals and the verbal texts (i.e., book titles) they accompany). Here, it should be noted that it is not simply a question of a text-image relation of addition, but the ways in which both modes work together to produce a unified, coherent, multimodal text, a text that in Halliday and Hasan's (1976) terms is " a semantic unit: not of form, but meaning" (pp. 1-2). Thus, it is our conviction that the juxtaposition of image and word usually results in a new holistic interpretation.

#### 2. The Rationale of the Study

One day the researcher saw a book, published by John Wiley and Sons, with the image of an athlete on the cover (i.e., image 5 below). It made me curious to check what discipline the book was on. Having a closer look at the book's title, the researcher could hardly relate the image on the book to its title and contents. This situation developed in the researcher the urge to conduct this investigation of the relationship between images on academic book covers and their titles from a semantic perspective

# 3. Objective of the present study

The main objective of the following study is to investigate the meaning of visuals on academic book covers. It examines the nature of the semantic relationship between the visuals and the verbal modes on academic book covers. More specifically, it probes into the type and nature of interaction between academic book titles and the visuals that accompany them in helping the users of those books determine the books' academic fields. The focus is primarily on the interaction between the book title and the visual image, and how such an interaction helps to yield more "contextual implications" (Sperber and Wilson, 1986).

Therefore, the following questions are useful to formulate:

- 1. What are the dominant visual images on the academic textbook covers selected for this study, and how do they function in terms of semiotic meaning: i.e., iconic, indexical and symbolic?
- 2. Does the image, after the removal of the book title, imply to the reader what the book is about?
- 3. Do the images on the cover show relevance to the content?
- 4. Do consumers perceive the connection between the book title and the visual?

Patterns of meaning construction using relevance theory

To answer the above questions, Sperber and Wilson's (1986) relevance theory is used for this purpose. For Sperber and Wilson (1986) the key to the definition of relevance of a proposition is the "contextual effects" which it elicits and the "processing effort" it requires to be processed. They present contextual implications as follows:

A set of assumptions [p] contextually implies an assumption Q in the context [c] if and only if

- (i) The union of [p] and [c] non-trivially implies Q,
- (ii) [p] does not non-trivially imply Q, and
- (iii) [c] does not non-trivially imply Q (Sperber and Wilson, pp. 107-108, 1986).

A contextual implication is, according to Sperber and Wilson, new information in the sense that it could not have been derived from [c] or [p] alone, but is the result of interaction between the two.

This happens in three ways:

- 1. By combining with the context to yield new contextual implications.
- 2. By strengthening existing assumptions.
- 3. By contradicting and eliminating existing assumptions.

It is on the premise of the above mentioned "contextual effects" that Sperber and Wilson



(1986) argue that the relevance of a proposition in a context is dependent on the number of the "contextual effects" it yields. They (ibid, p.122) define relevance in terms of "contextual effects" as follows:-

An assumption is relevant in a context if and only if it has some contextual effect in that context. Sperber and Wilson further argue that the contextual effects of an assumption in a given context are not the only factors to be taken into account in assessing its degree of relevance. Since contextual effects are brought about by mental processes and these processes involve an expenditure of effort they feel justified in adding an extra condition to the previous definition. This condition has to do with the principle of minimal effort. Therefore, the degree of the relevance of an assumption is determined by two conditions as follows:

**Extent** condition 1: An assumption is relevant in a context to the extent that its contextual effects in this context are large.

# Extent condition 2:

An assumption is relevant in a context to the extent that the effort required to process it in this context is small (Sperber and Wilson, 1986, p.125). However, Sperber and Wilson did not propose any objective measure for calculating the processing effort, an issue of concern in the present study. To understand the meaning(s) of visuals on book covers, their functions and relationships to book titles, Saussure's (1993) and Pierce's (1955) categories of components of signs are adopted in this study. Saussure divides a sign into two components- the signifier (the sound, image, or word) and the signified, which is the concept the signifier represents, or the meaning. Similarly, Pierce (1955) categorized the patterns of meaning in signs as iconic, symbolic and indexical. An iconic sign looks like what it represents—a picture of a glass, for example. It has a "typological similarity" (Sebok, 1994, p.28) to its object. In other words, it is a sign which shares similarities in appearance to the object which it represents. In this case, the iconic sign (i.e., signifier) directs viewers to something that it resembles

(i.e., the signified). The meaning of a symbol is determined by convention—in other words its meaning is abstract and arbitrary; it is based upon agreement and learned through experience (Kress and Leeuwen, 2006). For example, the image of a scale on courts buildings is a symbol of justice. In this case, the signifier (i.e. the scale) is used by humans to mean justice (i.e., the signified). An indexical sign, on the other hand, is a clue that links or connects things in nature. Smoke, for example, is a sign of fire. That said, some signs may carry two or more of these functions, as illustrated below.

Since the nonverbal sign can mean anything to different people, Nikolajeva's (2005, p.226) categories of the relationships between words and images, as either symmetrical, complementary, enhancing, counterpointing, or contradictory, are used in this study to describe the interaction between the two media, words and visuals.

# Experimental details

Materials (selection of book covers)

Sixty (60) representative book covers from the six academic disciplines chosen for this study (10 covers from each field) were selected from John Wiley and Sons' website. All are written in English. The choice of this publisher is due to the fact that the textbook that ignited the idea for this research is published by John Wiley and Sons. The publisher was contacted for permission to download the images, and use them in academic research. Permission was granted by the John Wiley and Sons' Permission Department in the month of May of the year 2015.

The academic disciplines covered are:

- 1. Business
- 2. Engineering
- 3. Law
- 4. Education
- 5. Linguistics
- 6. Agriculture

Hard and soft sciences textbooks were



selected from several academic fields to verify the relations, if any, between the images chosen and the nature of the sciences they portray. The book covers were selected and downloaded from the best-selling books posted on John Wiley and Sons' website. It is assumed that the best-selling books category will represent an objective measure for data choice. Such books have achieved a high selling rate compared to others, and are thought to be the best in terms of content and design.

#### **Procedures**

Then, the Adobe Photoshop image-editing software was used to remove the book title, without introducing any alterations to the visual image. This is named format A, which contained only the visual elements. Format B contained both the original visuals and the book titles as printed from John Wiley and Sons' website.

The experiment consisted of three phases. In the first phase, the participants (60 male and female university professors from public and private universities in the United Arab Emirates, 10 from each of the fields given in Table 1 (see appendix), participated in this study. They comprised Arabs, Americans and Europeans. They were shown colour copies of the individual visuals, and were asked to guess the academic field of the books from the visual on the book cover. Below are the questions they responded to:

- 1. Can you tell from the visual what the academic discipline of the book is?
- 2. What clues, if any, helped you to identify the academic discipline the book cover is taken from?

In the second phase, the participants were given the book titles and the visuals separately and were requested to match the titles with the visuals. In the third experiment, they were presented with the same visuals along with the corresponding book titles, and were asked to look into the semantic interaction between the visuals and the titles and say whether the visuals used relate to the book titles or not. In other words, they were asked to indicate the degree of

relevance between the book titles and the visual images. They were asked to indicate on a scale of relevance, (1) very relevant, (2) relevant to some extent, (3) not relevant, whether the visual images relate to (i.e., match) the book titles or not

Managing an interpretation for the visual is measured in this study in terms of the number of participants who were successfully able to arrive at the contextual meaning of the visuals. In other words, how much effort is needed in the identification task is calculated in this study by adopting the following:

1. Maximum relevance = identification rate of 100% out of all participants' attempts

The book cover employs images depicting simple physical symbols of specific products from the academic field the book is on. In such cases, the relationship between the images and the title can be graded as of maximum relevance.

Insert Figure 1

2. Medium relevance = identification rate of 50% or above out of all participants' attempts

The book cover employs physical images common to a variety of academic disciplines. In this case, the relationship between the image and the book title can be graded as of medium relevance.

3. Low relevance = identification rate of below 50% out of all participants' attempts

The book cover uses abstract intellectual and symbolic images to depict the nature of the subject the academic book is on. In this case, the relationship between the image and the title can be graded as of low relevance.

This may be an arbitrary scale, but there was a need for a way to calculate the volume of exerted effort in the identification task.

#### Results

In this section, the researchers selectively report on examples of the 60 book covers chosen for this investigation, with the exclusion of the participants' left out responses. As for



research question 1, Can the respondents tell from the visual what the academic discipline of the book is?, Table 1, see appendix, shows the number of successful and unsuccessful attempts. The participants were able to identify the books' general academic field from images 1,5,6,7,16,20,22,27,29 and 30, but were not successful in identifying the others (20 visuals), a point elaborated on further in the discussion section below. The results also indicate that the presence of field specific concrete objects, see figures 1 and 2 below, on some book covers showed a strong effect on the success of the academic field identification task.

#### Insert Fig. 2

For instance, the presence of solar panels and/or windmills as shown in above images, directed the participants to the general field of renewable energy- i.e., sun and wind energies respectively, and led to 100% correct identification of the books' general academic field. Similarly, the images of the plough, the ox, the farmer and the tilted soil in Fig. 3 below directed the viewers to the general theme of the book- agriculture, and resulted in 100% successful identification.

#### Insert Fig. 3

Moreover, results point to no significant difference among participants as regards their successful or unsuccessful identifications. Yet, the only significant difference is found across the academic disciplines. That is, visuals depicted on some academic textbook covers make it easy for viewers to identify the general academic field the book belongs to. The percentages of successful identification attempts for engineering, agriculture, business, law, language and education fields were 93%, 90%, 20%, 13%, 7% and 3% respectively.

As far as the type of images used on book covers are concerned, it is observed that the images differ according to the academic discipline. That is, the dominant images used on some book covers are icons of some of the field products. For instance, in hard sciences such as civil engineering, agriculture, marine life and biomedical engineering, book covers

exhibit concrete images of their field products. Similarly, in other disciplines, especially of the soft sciences, an image is used to contextualize some conceptual idea illustrating the nature of what is being discussed in the books. The Table 2 (see appendix) shows the most dominant images per academic field:

It is also noted that there were more iconic message elements than symbolic on engineering and agriculture book covers compared to the other academic disciplines used for this study. In other words, business, law, education and linguistics book covers exhibit visuals that stress the conceptual/intellectual over the concrete visual aspects of the respective academic field products, a significant difference that is discussed in more details below.

Yet, it is also observed that some visuals, when seen without the book titles, generated different unlimited meanings for the visual representations. The image in Fig. 4, because of the female image and the image of the remote control, directed the respondents to the media and entertainment field, although the specific book theme was on crime, culture and the media. However, the presence of such images led to some partial identification of the general academic field of the book. Some other images, see 5 below for an example, misdirected the respondents to a totally different field, the field of sports. For instance, in 5 below the respondents only considered the iconic meaning of the image, and assigned the book to the field of sports.

Insert Fig. 4.

Insert Fig. 5.

Even when the image was presented with the book title, the respondents still were not able to see the semantic interaction between the two modes of communication. This may mean that viewers of book covers and titles only interact with the images' iconic meaning, a point discussed in the following sections in details.

On the contrary, other images, such as 6 below, defied the respondents' identification



attempts, which resulted in 0% identification success without the presence of the book title.

Insert Fig. 6.

In response to the above visual, no respondent was able to figure out the general theme of the book from the image. Some made guesses and assigned the book to the artificial intelligence and/or architecture fields. However, when presented with the book title and the visual, the respondents were able to see some connection between the book title and the abstract meaning depicted in the visual- The Future of Creative Writing.

To test the participants' ability to match the titles with their relevant visual images, Table 3, see appendix, presents the results of the experiment. It demonstrates that the engineering and agriculture fields were the easiest compared with all other academic fields. The academic disciplines with the highest unsuccessful identification attempts, in descending order, are education (97%), language (93%), law (87%) and business (80%).

When the visuals along with the book titles were presented to the participants to assess their relevance to each other, they were asked to indicate on a scale of relevance, (1) very relevant, (2) relevant to some extent, (3) not relevant, whether the visual is related to (i.e., matches) the book title, it is noted, see Table 4 in appendix, that the perceived the degree of relevance (i.e., matching) results show strong positive and/or negative correlations between the participants' identification attempts of books' academic fields based on visuals without the titles (see Table 5 in appendix). For an example of negative correlations between the respondents' unsuccessful identification attempts of books' academic fields from the visual on the book cover and the degree of relevance the respondents assigned to the visual, let us consider images 15 and 17 given below as figures 7 and 8, respectively.

Insert Fig. 7

Insert Fig. 8

These two visuals take readers to various

semantic fields. Although the participants could not identify the book's specific academic field from the visual given in 7 above, they rated the same visual as very relevant when they saw it with the book's title. Another case is the visual given in Fig. 8. This image made some viewers form assumptions that the book is on the environment, poverty, child labour, landfills, rubbish, pollution, etc. Even after seeing the book's title, Understanding International Law, the participants were not able to tell what the specific focus of the book is. An example of positive correlations between the respondents' successful identification attempts of books' academic fields from the visual on the book cover and the degree of relevance they assigned to the visual is image 7, given below as Fig. 9.

Insert Fig. 9

#### Discussion

It is clear from the above that most visuals have floating meanings for different persons when presented without the book title. Consequently, it is then argued here that the visual needs the linguistic explanation (title) to clear up the superfluous meaning. Therefore, all books have a linguistic message (title) attached to the visual in order to help establish the meaning of the visual, and relate it to the contents of the book. In this regard, Saussure's (1993) divisions of a sign into two components- the signifier (the sound, image, or word) and the signified, which is the concept the signifier represents, or the meaning, is of great relevance. According to Saussure all signs consist of two elements: the signifier and the signified. The signifier is usually the sign itself, which is the indicator of something else. The signified is the "something else" that the sign connotes. Thus, "connotation" links the signifier and the signified. In the absence of clear connotation, there is no signifier or signified. Therefore, Berger (1966) points out that the problem of meaning arises from the fact that the relationship between the signifier and the signified is arbitrary and conventional. In other words, signs can mean anything we agree that they mean, and they can mean different things to different people. In the same vein,



(1977, p.38ff) argues that linguistic elements can help "anchor" (or constrain) the preferred readings of an image: to fix the floating chain of signifieds" (ibid, p. 39). Thus, Barthes' (1977) concept of 'anchorage' is important in creating and assigning meaning for the visuals. In explaining anchorage, Barthes envisages a need for the meaning of images to be always related to, or in some way dependent on verbal text. Images without verbal support are seen as being too open to a variety of meanings, having an inherent indefiniteness which necessitates a reliance on verbal language to provide a more substantive interpretation. The rational, according to Sonesson (1989) is that:

... all images are polysemous; they imply, underlining their signifiers, a 'floating chain' of signifieds, the reader able to choose some and ignore others ... Hence in every society various techniques are developed intended to fix the floating chain of signifieds in such a way as to counter the terror of uncertain signs; the linguistic message is one of these techniques (pp.38-39).

Put differently, the function of the verbal is to anchor the various possible meanings and direct the reader's interpretation of possible visual ambiguities, which is consistent with Sperber and Wilson's (1986, 107-108) concept of "contextual implication". As a result, Queiroz and El-Hani (2006:183) argue that the communication of a form from the object to the interpretant constrains the behavior of an interpreter in the sense that it brings about a constrained set of effects of the object on the interpreter through the mediation of the sign. Put in Sperber and Wilson's (1986) terminologies, the visual image in 10 below when seen by viewers interacts with the viewers' background knowledge and creates in them a specific assumption about the general academic field of the book, which is medical implants. Then, when viewers read the book title, this new information either helps strengthen or discard the initial assumption the viewers arrived at, based on the degree of match between the initial reading of the visual and the meaning obtained from the book title. In Nikolajeva's (2005:226)

terms the relationship between this book title and the image is that of symmetry.

Insert Fig. 10.

Another example of the opposite is the image shown in 11 below. When the respondents saw it, they formed the initial assumption that the book it goes with falls within the civil engineering field, which may be justified since structural engineering books employ similar images to those used in the business field. Yet the book title, Innovation and the Future Proof Bank, will clash with the readers' initial assumption and yield the new contextual effect that the field of the book is business, and not engineering. In Nikolajeva's (2005:226) terms, the relationship between the image and the book title is that of counterpointing.

Insert Fig. 11

From a Peircian perspective, the outcome of this meaning validity assessment can be predicted with greater confidence by understanding the "indexical" and "iconic" status of the cues presented on the book cover. In this regard, Sonzogni (2011:4) raises the following interesting question:

"Should there be a relationship of 'fidelity' or integrity' between a cover and its book?"

He argues that "the book cover provides the (potential) reader with a visual summary of the book's contents" (p. 4). Thus visual images, besides being ideational, organizational and interactional tools can be used for at least the following rhetorical functions: illustrative, expository and decorative (Morell, 2015, p. 141). Yet, it is found out that there is more use of iconic, indexical and symbolic signs in some academic disciplines compared to others. For instance, engineering disciplines utilize various visual representations dictated by the nature of the individual discipline(s), whereas disciplines that heavily depend on complex mental representation and interpretation of processes use abstract images that cannot be pinned down to a specific interpretation without being juxtaposed to the book title, see Fig. 6 above for an example. That is in line with Kress



and Leeuwen's (2006) viewpoint that:

The use of visual mode is not the same now as it was even fifty years ago in Western

societies; it is not the same from one society to another, and it is not the same from one

social group or institution to another (p. 35).

In a similar context, Berger and Luckmann (1966) and Morgan, (1998) note that visual reality is essentially socially constructed, and making sense of the visual is conditional on past experience, memory, associations, context and intent. Thus, Pavelka (2013, p. 95) states that "knowledge of contemporary life and institutions is the basic communication competence necessary for the interpretation" of visuals. For example, image 12 below was accessible to only two European respondents because of their possession of specific cultural background knowledge that helped them interact with the image. This corroborates Widdowson's (1978, p. 174) argument that "there is no possibility of recovering complete meaning from text" and that decoders must search their "conceptual world of ... knowledge and experience for the encoder's meaning". Other respondents lacking this background knowledge interpreted the visual as representing the oil production field.

# Insert Fig. 12

Contrary to this, from the two images below, all the respondents were able to identify the books' general academic field, and when shown the visuals along with the books' titles, reported complete matching between the visuals and the titles.

Insert Fig. 13

Insert Fig. 14

Yet, there were also cases of strong negative correlations between the respondents' unsuccessful identification attempts and the degree of matching between the visual and the title. Image 3, given below as 15, is an example of this.

Insert Fig. 15

Although this image defied identification for

the big majority of the respondents (90%) and required more processing effort from them to correctly identify the book's general academic field without the presence of the title, there were three successful identification attempts in which the respondents gave the response copied below:

"The shadow is more than the real height of the person in the picture, which may mean / indicate that the crisis is insurmountable"

Nevertheless, upon seeing the book's cover with the visual and the title, all the participants unanimously agreed that the image is harmonious with the title of the book. This supports Kress and Leeuwen's (2006, p. 26) statement that "the code directs viewers to specific readings".

It should also be noted here that some visual images may require careful analysis and consideration of all signs portrayed on a book's cover. This process of iconographic analysis of all signs depicted on a book's cover will result in successful identification of a book's academic discipline by considering all the collage of signs used. A case of this is image 1, given below as Fig. 16. If the images of the automatic telling machine (ATM), the keyboard and the credit card are hidden, viewers of the visual may assign the book to the engineering field, because of the high rise building. But, the combination of the four images will direct the viewers to a different academic field- banking.

# Insert Fig. 16

Therefore, the visual designer, juxtaposing the book title with a visual image, intended to create certain meanings and associations for a given product by simply linking that product with something that already has the target meanings and associations. This explains why the identification results are better than the matching results. In the former the participants, in the absence of the verbal text, paid more attention to clues given in the visuals to identify the books' academic fields. In this context, it is in order to note that the lexical clues, especially modifiers, in the book titles were not of much help to the participants in



the matching exercise. For example the words "global", used in the title of book no. 9, given below as 17, and the word "international", used in the titles of books numbers 15 and 17, given below as 18, and 19, were not of much help to the participants in the matching activity because the visuals included several symbolic images that could be associated with these two lexical items. Besides, the image of the globe on book number 19, given below as 20, was misleading without the book title.

Insert Fig. 17

Insert Fig. 18

Insert Fig. 19

Insert Fig.20

These images, what Serafini (2015, p. 124) refers to as "intertextual", cannot be linked to one particular discipline or subdiscipline, without the book titles. Furthermore, it is noticed that same representations are used within one single academic discipline, Serafini's (ibid) intratextual category, to represent a book's general academic field, although the information focus is different. For instance, business and engineering books may use identical images, see 11 above. This, once more, substantiates Sperber and Wilson's (1986) concept of "contextual effects". That is, trying to anchor a specific meaning to the image is enhanced by the presence of the title, which results in yielding new contextual information represented in the viewers realizing the strong connection between the visual(s) and the book title. That said, the full identification process sometimes requires more incoming information than that retrieved from the visual(s) and the book title. Such information may be gleaned from the blurbs on the book covers and the table of contents. That is why book publishers send prospective users of books more information on the book than that the readers can glean from the visual and the book title. Most often, potential users are sent a summary of the whole book, and, sometimes the table of contents and a sample chapter.

Therefore, it is advisable "... to never

judge a book by its cover" (O'Connell (2010, p. 1) as research (Jones, 2007) shows that most reading decisions are not only based on a book's cover art and title. This means that the visual representation and the book title are there to allure potential prospective readers into reading the books, and reaching a decision on its suitability for the courses they may want to use it for. This is in line with Serafini, Kachorsky and Goff's (2015, p. 96) argument that book covers "... serve a commercial and rhetorical purpose". Also noted that some visuals, see Fig. 5 above, offer more connotations than denotations. For instance, if viewers use imagination and fully engage with visuals in an attempt to know how the verbal text interacts with the image, Fig. 5 could be interpreted to mean that these accounting principles add strong foundations, preciseness and rigor to business accounting.

Conclusion, recommendations for future research and pedagogical applications

It seems that the types of visuals used are discipline driven. In other words, sciences with concrete visible products use visuals illustrating these products on their book covers. For example, agriculture and engineering textbooks mainly use iconic signs of field products, which make viewers easily identify their academic affiliations from these images. On the contrary, sciences with invisible and intangible products use more abstract illustrations. This latter category is the one that invokes unlimited number of interpretations and requires more processing effort. This may be an indication as to how measurable these products are. For example, the work of construction and agriculture is visible, and therefore is represented by showing concrete examples of their products on their book covers that may lead readers to easily identify the general theme of the book. Related to this is the use of generic nouns to name identifiable images shown on book covers. For example, the nouns 'animals', 'sugarcane', 'plants', 'insects', 'fish', used in some book titles, led the viewers to successful matching of the corresponding images.

Contrary to this is the word 'BANK', which has no identifiable features. Therefore, it is



recommended that names of things shown on the book covers be given to help viewers identify the book's academic field and interact with book titles. That said, some names or things do not have any specific identifiable features that would make them identifiable. For example, if the building of a bank is shown on a book cover and named, it could still be confused with other book covers that have buildings on them, unless some banking identifiable images such as an ATM or a credit card are shown on the building. Worth noting is that images of buildings on book covers have different indexical meanings, which are determined by the book title. For example, accounting book covers, being concerned with the cost of buildings, like structural engineering book covers, exhibit images of a variety of buildings. That is why some viewers may confuse the two books based on the image used on the book covers. Therefore, it is only upon seeing the book title that the viewers are able to anchor those buildings to a specific academic field. Consequently, two tokens of a given type of indexical signs may have different indexical meanings. It could, therefore, be proposed that indexical signs should not be used unless their designers are sure that they indicate something specific to their potential users/viewers.

Nevertheless, the interaction between the meaning of the visual and the book title may not bring about exact identification of the specific focus of the book. Therefore, book publishers include blurbs on book covers to enable prospective buyers and users know the focal point of the book. Thus, it is advisable for professors not to choose an academic book by its cover, since as Widdowson (1979, p. 174) argues, "... there is no possibility of recovering complete meaning from a text". Based on the above, the writer proposes the following:

- Book cover designers and publishers may consider having different book covers for the same book, depending on who the readers are and in which region of the world the book is intended to be distributed.
- 2. Perhaps, designers should be someone from the discipline the book belongs to.

- 3. Authors, in consultations with image designers, should have a say in the choice of image(s) on book covers.
- Images may be circulated to a few professionals from the field for feedback on their suitability and communicative power before they are endorsed.
- Designers should take great care to ensure that their productions are visually appealing and rhetorically effective.
- 6. Names of items represented in images should be used to help viewers identify the book's academic field. For example, if the book cover depicts images of fish, animals, insects, bridges, or medical implants, it is then recommended that generic nouns such as fish, animals (or specific names of animal(s), insects, bridges, or flyovers and names of medical implants be used in the book title to enable readers identify the specific academic focus of the book. It is noted that such nouns helped the participants match the visuals with the book titles presented to them as detailed above.
- 7. Abstract book covers containing no visuals should be avoided as much as possible.
- 8. In the case of multidisciplinary books, books covering more than one academic discipline, it is proposed that visuals on this type of books contain images representing both disciplines.

In a nutshell, a book cover should not be considered as fully independent from its book. If the visual on the book cover is unrelated to the text of the book, the content of the book could be misrepresented. Thus, a book cover should engage first and foremost with the genre of the book and then with the content of the book. This exploratory reading of visuals on academic book covers underscores that the relationship between the textual and visual elements on a cover, albeit being pivotal in the meaning making process, calls for interaction between these two and the readers' background knowledge. As a result, readers of book covers should be able to explore all the interactions



between the visuals on a book cover, its title and the contents of the book. That is why it could be dangerous for readers to judge a book by only its cover. Books from other academic disciplines, such as philosophy, may exhibit more abstract complex visuals on book covers because of the nature of the field- a topic for future research. Another study may repeat same procedures with a bigger number of book covers and require participants to have a good look at books' tables of contents before asking their opinions on relations between book titles and images on front covers. Others may replicate the same study with people from different cultures to investigate whether their readings of visuals is impacted by their local culture and upbringing. Future research may also examine if there is any correlation between the participants' identification of image meanings and their educational (discipline) background. For example, are science professors more able to identify more images and attribute them to their specific fields than others or vice versa? Whether the visuals used on book covers are effective in communicating the message they were intended to convey is another issue left for future research to explore. Researchers may also study the linguistic features (i.e., syntactic structures) of book titles and whether certain structures are more indicative of the field of the book and its contents than others. Another study may compare literary textbooks with other book genres to investigate which group uses more connotations than denotations and vice versa.

As far as pedagogical applications are concerned, visual design students may be presented with sample book titles and be asked to create images that match and reflect the books' academic field and contents. Similarly, students may be shown sample book visuals and be asked to describe what they portray and what culture they are suitable for. This could help teachers get students to work in teams and develop their visual literacy, critical thinking and speaking skills. Moreover, students could be engaged in matching activity, which requires them to match book covers with book titles and conclude this activity with a choice of the

best book images and titles. A final suggestion is directing students' attention to lexical clues given in book titles, and that these should name things shown in the images displayed on the book.

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