Representation of space in Vietnamese classifiers*

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1. Introduction

1.1 In linguistic studies devoted to the human concepts of space, not enough attention has been paid to the study of spatial nouns so far—as a rule, attention is focused on spatial verbs, adjectives and prepositions only. The aim of the present paper is to research nouns which describe spatial characteristics of objects in the surrounding world. I shall consider mainly a specific group of nouns of the Vietnamese language—the so called "classifiers."

1.2 In a number of languages, classifiers have been studied chiefly from the point of view of their syntax, leaving insufficiently considered their semantic and cognitive foundations,[1] which allow speakers to group them together, and which are rather subtle, complicated and have fuzzy boundaries even for native speakers. This is why I shall try to uncover the ways by which Vietnamese speakers use classifiers in order to describe the shape, size and position of the object pointed at by the noun to which the classifier is referred. In so doing, and basing myself upon linguistic facts, I shall also try to demonstrate that there in indeed a typically "Vietnamese" way of conceptualizing, classifying and describing the world.

2. Grammatical and semantic notes on Vietnamese classifiers

For the convenience of the reader not familiar with Vietnamese, I shall briefly outline the main grammatical (Nguyen Tai Can, 1963, 1975) and semantic characteristics of classifiers.

2.1 The availability of classifiers (ca. 40 words) as a special group of nouns is one of the features of the Vietnamese language. The main function of a classifier (abbr.: *clas.*) is to express the singleness of the object denoted by the following noun: hence their ability to combine with numerals when counting. For instance, whenever a Vietnamese speaker says *con gà* (verb.: clas.+ chicken) 'a chicken', he

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[1] Except some outstanding studies such as that by Lakoff (1986) and the article by Friedrich (1970).

perceives the chicken as an individual object, singling it out from the class of similar objects.[2] It is not by accident that the short story by the Russian writer Chekhov *Dama s sobachkoi* 'The Lady with a lap-dog' has been translated into Vietnamese as *Người đàn bà có con chó nhỏ* (verb.: clas.+ woman + have + clas.+ dog + small), and Henry's novel *The last leaf* as *Chiếc lá cuối cùng* (verb.: clas.+ leaf + last).

Another secondary function of classifiers is to help divide the objects of the world into various types (e.g. people, animals, inanimate objects), as well as describe spatial characteristics of the particular objects they are referring to. For instance, the classifier *lá*, with its initial meaning of 'leaf' (of a tree), in the combination *lá thư* (verb.: clas.+ letter) 'a letter' conveys the idea that the letter thus meant is perceived as a flat, two-dimensional object. It should be emphasized that, in this case, the description refers, not to a class of object, but only to the one letter, with its "picture" described by the classifier. It may also be noted that such a description of the object in its singleness is done explicitly. In English, for example, the spherical feature is included in the meaning of the noun *ball* only implicitly. In Vietnamese, the same feature receives explicit expression by means of the classifier *quả* (with its initial meaning of 'fruit')": *quả bóng* (verb.: clas.+ ball) 'a ball'.

On the basis of this secondary function, one may say that classifiers classify, characterise or describe objects through definite features.

2.2 Taking into account their various functions, classifiers may be divided into two groups: numerical (or non-descriptive), and descriptive. Let us now consider the differences between these groups. Cf. *cái tranh* (verb.: clas.+ picture) 'a picture' here the numerical classifier *cái* only singles out this particular picture from the series of its line; and *bức tranh* (verb.: clas.+ picture) - in this case the descriptive classifier *bức* has both the function of a numerical classifier, and that of simultaneously describing the picture as a flat object.

The usage of numerical classifiers is strictly determined, primarily by the entire meaning of the object-noun. Viz.:

- *Con* is used for animals, e.g. *con bò* (verb.: clas.+ cow) 'a cow';
- *Cái* is used for things, e.g. *cái ghế* (verb.: clas.+ chair) 'a chair';
- *Đứa* is used for young people, e.g. *đứa bạn* (verb.: clas.+ friend) 'a friend'.

Contrary to this, the usage of descriptive classifiers does not have such a restrictive nature: in many instances it may vary, depending on various factors (this point will be discussed below).

Descriptive classifiers are ordinarily used only with nouns denoting inanimate objects; in doing so, the speaker selects a few objects on the basis of

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[2] In the absence of the classifier *con*, the word *gà* 'chicken' depending on the context, may denote either a certain class of objects or a concrete representative of this class. Cf., for example, *Nó nuôi gà.* 'He keep chickens' (i.e. not geese); and *Gà đâu rồi* 'Where is the chicken?'—in the second instance, the concrete chicken is meant.

similar spatial characteristics. Thus, for instance, almost all household items, such as a bed, a basket, a cup, a shirt, etc., are not described by descriptive classifiers, but only referred to by numerical ones. However, there are a number of exceptions, viz.:

- *Ngọn đèn* (verb.: clas.+ oil lamp) 'an oil lamp': the classifier *ngọn* (with its initial meaning of 'apex') conveys the representation of a lamp shaped like a tree apex.
- *Con dao* (verb.: clas.+ knife) 'a knife': the classifier *con* (for animals[3]) points to the presence of a particular shape, or action, of a knife that enables one to regard it as an animate object; Cf. also *con sông* (verb.: clas. + river) 'a river', *con thuyền* (verb.: clas.+ boat) 'a boat'.

Each one of the descriptive classifiers is customarily used for a group of objects consisting of a small number of items (from five to seven, on the average). For instance, the classifier *tờ* may be used for such objects as a newspaper, a picture, a calendar, a card, etc., all of them having the shape of a sheet of paper.

From this point on the present paper will be dealing with descriptive classifiers only.

3. Using classifiers to divide objects by their spatial characteristics

3.1 The notion of "salience"

Before giving a full list of descriptive classifiers of the Vietnamese language, let us try to make some terminological definitions more accurate. While describing the usage to different classifiers, or indeed the use of one particular classifier, it becomes evident that using the psychological notion of "salience" is particularly expedient. As a matter of fact, the perception of spatial objects by man is relative, and in many cases their classification and conceptualisation depend on the "salience" of one feature against the background of others. Let me begin with the best known facts. Compare the two English sentences:

- The bike is near the house
- *The house is near the bike

The second sentence is non-normative, because the house is "saliently" considered to be more conspicuous and permanent than the bike (1988). The "salience" of the transverse dimension in the choice between Russian adjectives like *shirokii* 'wide', and *dlinnyi* 'long' (cf. *a wide house* and *a long house*) has been well described by Zhurinskii (1971).

Observing the "salient" feature in man perceiving spatial objects is especially easy when comparing different languages. Thus, English , Russian, Vietnamese and French speakers alike "see" a road as a plane; this is shown by the use of particular

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[3]Although it would be more accurate to say "classifier used with words denoting animals," I shall be using here and elsewhere in similar instances a shorter phrase, e.g. "classifier for animals."

prepositions: *On the road, na doroge, trên dường, sur la route*. On the other hand, speakers of Tay (one of the Thai languages of Northern Vietnam) perceive it as a enclosed area limited on both sides, and would say: *chang tàng* (verb: inside the road); Cf. *chang slườn* 'in the house', 'inside the house' (Hoang Van Ma et al., 1971). It would be appropriate at this point to recall the polemic between Bennett (1971) and Leech (1969) concerning the fact that, in Bennett's opinion, in the English phrase *on the road*, the road is seen as a plane, while, according to Leech, it is perceived rather as a line.

Let us now come back to the descriptive classifiers. For instance, such objects as swords and sabres are long objects, like rifles (guns), spears and lances. Nevertheless, unlike the latter, the former are "saliently" perceived as being flat (with insignificant thickness and width): so, for a sword or a sabre, the Vietnamese speaker uses the classifier *thanh*, the initial meaning of which associates it with the adjective *thanh* 'thin' (referred to a person's figure or body features); whereas for a rifle, a spear or a lance, the classifier *cây* (initial meaning: 'tree') is used instead, i.e. these objects are "saliently" seen as "tree-like." One more example: a wall has a length, a width and a height, i.e. it has every "right" to be perceived by man as a three-dimensional body (cf. *a high wall, a long wall* and *a thin wall*). However, in the combination *bức tường* (verb.: clas.+ wall) 'a wall', the descriptive classifier *bức* shows that in Vietnamese the given wall is regarded only as something similar to a letter or a photograph (cf. *bức thư* 'a letter', *bức ảnh* 'a photograph'), i.e. with the "salient" feature of a plane, two-dimensional surface.

Of interest in this connection are some data on classifiers in the Tarascan language (Friedrich, 1970): fruits are usually qualified as three-dimensional objects; bananas, however, as two-dimensional. Or, to take another example, although animals are commonly qualified as one-dimensional, frogs and toads are seen as three-dimensional, because they are thought to be "rounded" (cf. also the Navaho language, in which they are perceived as mud-like objects).

3.2 The notion of "meaning" in classifiers

In dictionaries of the Vietnamese language, the meaning of classifiers is generally defined as follows: "...used to point at a separate unit of objects having the shape...". As I believe, however, it would be more accurate to say that they have no proper meaning in the narrow sense of the word. Strictly speaking, they have no significate, nor do they have any denotate. Reflected in their content, there is only a preconceptual, visual and sensory image of one concrete representative of the whole class of objects denoted by the following noun; this is the case even when the meaning is metaphorical as, for instance, the classifier *lá* 'tree leaf'. In other words, one is dealing here only with an immediate perception of the real world, not with its epistemic cognition.

Further on I shall be speaking of the classifiers' "meaning," but this is to be understood in a psychological sense of the term like, for example, something that Leont'ev has called "object meaning" (1983).

From the view-point of semantic etymology, descriptive classifiers may be divided into two groups: the first one consists of classifiers, the derivative meaning of which is clearly associated with the initial meaning of the corresponding nouns;

for instance: *quả* 'fruit', *lá* 'leaf of a tree', *ngọn* 'top or apex of a tree', *cây* 'tree', *que* 'small stick', *tờ* 'sheet', *dòng* 'flow'; *sợi* 'thread'. The second group comprises classifiers deprived of such a metaphorical meaning: *viên, bức*, etc. It is expedient to note that many Vietnamese classifiers are of floromorphic (not anthropomorphic) character.

3.3 A list of the most widely used descriptive classifiers, and division of objects by classifiers

The following classification takes into account two factors: the "salience" of a particular spatial feature for human perception, and the "object-meaning" of classifiers; it will be built up in the following manner:

a) the classifiers will follow one another according to the weakening of their "meaning";
b) in defining each individual classifier, I shall be pointing out mainly the "salient" spatial properties of the objects they are referred to.

In this way, descriptive classifiers divide objects into three different groups:

A. The group of cubic objects:

A1. The classifier *quả* 'fruit' (and its dialectal synonym *trái*) is used to describe "fruit-like" objects of "saliently" rounded shape: *quả thận* (verb.: clas.+ kidney) 'a kidney', *quả tim* (verb.: clas.+ heart) 'a heart'[4], *quả trứng* 'an egg', *quả đồi* 'a hill', *quả bóng* 'a ball', *quả địa cầu* ' a globe (earth)', *quả lựu đạn* 'a grenade', *quả bom* 'a bomb', etc.

A2. The classifier *ngọn* 'top or apex of a tree' is used to describe "apex-like" objects of "saliently" conical shape: *ngọn núi* ' a mountain', *ngọn tháp* 'a tower', *ngọn đèn* 'an oil lamp'; Cf. combinations including the word *ngọn*, in which the following noun denotes a "matter" (substance) but not an "object": *ngọn lửa* 'a flame', *ngọn gió* 'a wind'.

A3. The classifier *hòn* is used to describe objects having a volume, and a "saliently" rounded shape *hòn núi* 'a mountain', *hòn đảo* 'an island', *hòn đạn* 'a (round) bullet, a shot (from a cartridge)'; and the like; Cf. combinations of the word *hòn* with nouns of substances: *hòn đá* 'a stone', *hòn đất* 'a clod (of earth)'.

A4. The classifier *viên* is used to describe objects "saliently" small in size and of rounded shape: *viên thuốc* 'a pill', *viên bi* 'a marble (for children's games)', and others; Cf. combinations including the word *viên*, in which the following noun denotes a matter: *viên đường* 'a sugar-lump'.

B. The group of flat objects:

B1. The classifier *lá* 'leaf (of a tree)' is used to describe "leaf-like" objects: *lá thư* 'a letter', *lá cờ* 'a flag', *lá phổi* 'a lung', *lá gan* 'a liver', and the like.

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[4] I shall no longer give the verbatim translation (between brackets) of the examples, for the sake of clarity.

B2. The classifier *tờ* 'sheet' is used to describe 'sheet-like' objects of "saliently" rectangular shape: *tờ báo* 'a newspaper', *tờ truyền don* 'a leaflet', *tờ tranh* 'a picture' (i.e. a reproduction without a frame); Cf. combinations of the word *tờ* with a noun denoting a matter (substance): *tờ giấy* 'a sheet of paper'.

B3. The classifier *bức* is used to describe flat objects "saliently" occupying a vertical position: *bức tường* 'a wall', *bức vách* 'a partition (between rooms): *bức bình phong* 'a screen', etc.

B4. The classifier *tấm* is used to describe flat objects that are "saliently" thin, and in a horizontally oriented position: *tấm ảnh* 'a photograph', *tấm thảm* 'a carpet,' *tấm màn* 'a curtain', and the like; Cf. combinations including the word *tấm* in which the following noun denotes a matter: *tấm gỗ* 'a wooden board', *tấm vải* 'a piece of fabric'.

B5. The classifier *thanh* is used to describe flat objects of "saliently" elongated shape and small width: *thanh kiếm* 'a sword', *thanh gươm* 'a sabre', etc.: Cf. combinations of the word *thanh* with a noun of matter: *thanh gỗ* 'a wooden plank', *thanh sô-cô-la* 'a chocolate bar'.

C. The group of linear objects:

C1. The classifier *cây* 'tree' is used to describe "tree-like" objects of "saliently" cylindrical shape and vertical position: *cây cột* 'a pillar', *cây giáo* 'a spear', *cây nến* 'a candle', and the like: Cf. combinations of the word *cây* with a noun of matter: *cây gỗ* 'a log (wood)'.

C2. The classifier *que* 'small stick' is used to describe "stick-like" objects "saliently" small in size: *que diêm* 'a match', *que tăm* 'a (bamboo) toothpick'; Cf. combinations of the word *que* with a noun of matter: *que sắt* 'a (small) iron stick'.

C3. The classifier *dòng* 'flow, stream' is used for linear objects occupying a "saliently" horizontal position: *dòng sông* 'a river', *dòng suối* 'a rivulet'; Cf. combinations of the word *dòng* with a noun of matter: *dòng nước* 'a water flow'.

C4. The classifier *sợi* 'fibre, thread' is used for linear objects "saliently" small in diameter and occupying a horizontal position: *sợi dây* 'a cord, a string', *sợi tóc* 'a (head) hair'; Cf. combinations of the word *sợi* with a noun of matter: *sợi chỉ* 'a thread'.

It should be noted that Vietnamese scholars of linguistics believe these classifiers to combine only with names of "objects", not of "matters" (substances) [see, for example, Nguyen Tai Can (1963)]. On account of this, the above classification includes some examples containing the name of "matters" -- in the modest form of: "Cf." -- only to contrast them with those containing the name of "objects."

My description of Vietnamese descriptive classifiers reflects the universal "minimal" perception by man of different shapes of objects -- round, flat, and long (Friedrich, 1970), as descriptions of the usage of classifiers in other languages have already shown it.

A further step, revealing the node of cognizing space in its specificity, can be taken only by analysing the decisive facts at work in the selection of classifiers.

4. Absolute and relative orientation in describing the spatial properties of an object

While spatially measuring the objects of the outer world, man, on the one hand, operates with relative quantities. For instance, with the help of the descriptive classifier *quả* 'fruit', man brings together "fruit-like" objects that are fairly different in volume and shape: a mountain, a heart, a bomb, a globe. On the other hand, human spatial perception may be absolute: a letter, for example, is considered as a plane (as a tree leaf); it follows that the classifier *quả* 'fruit' cannot be applied to it.

The use made of descriptive classifiers provides the basis for singling out two types of orientation, used in describing the spatial characteristics of objects: absolute orientation and relative orientation.

4.1 Absolute orientation in description:

This type of orientation implies the association of only one descriptive classifier with each object. Its use depends on the following factors:

1. The shape of the object

As has been demonstrated above, the classifier *quả* 'fruit' is steadily used with several objects having a rounded shape: the very generalising numerical classifier *cái* (for inanimate objects, in most cases) cannot be substituted for it. One may say *quả tim* 'a heart', but not **cái tim* 'a heart'. The classifier *tờ* 'sheet' works in similar fashion in combination with the noun *báo* 'newspaper'; one may say *tờ báo* 'a newspaper', not **cái báo* 'a newspaper'. A good example may also be found in the description of man's lungs: to refer to one of them, the classifier *lá* 'tree leaf' is used; whereas to describe the object as a whole, the word *buồng* is used instead, conveying the image of a "bunch (of bananas)", Cf. *lá phổi* vs. *buồng phổi.*

2. The size of the object

The relevance of this factor becomes evident when comparing the two classifiers *quả* 'fruit', and *viên.* While *quả* is used for three-dimensional objects of "saliently" rounded shape and (relatively!) big size, such as a ball, a globe, a shell, *viên* applies exclusively to small objects like a candy, a pill, a bullet.

It would be more difficult to describe this factor in the classifiers *quả* and *hòn.* At first sight, they are not distinct in qualifying the object's size, Cf. *quả núi* 'a mountain', and *hòn núi* 'a mountain'. Nevertheless, their difference is revealed through such oppositions as: *quả núi* 'a mountain'—*hòn non bộ* 'scale model of a mountain' (in a garden or ornamental water-works); Cf. also the pair: *quả đất* '(terrestrial) globe, planet Earth'—*hòn đất* 'a clod (of earth)'.

The differences in the usage of the classifiers *cây* 'tree', and *que* 'stick': the former is used for a pillar, a lance, a rifle, a candle; whereas the latter denotes a match, a toothpick.

3. The position of the object in space

This factor is revealed by the content of two classifiers: *cây* 'tree', and *bức*, both pointing to the object's position along a vertical axis. The former is referred to objects in a vertical position that have a cylindrical shape: so *cây* 'tree' may be used with nouns denoting objects like a column, a pole, a spear, a pen; but not for objects like a string, a cord, a thread.

The second classifier—*bức*—points to the vertical placement of flat objects like a wall, a partition. Note that the flaps of a door, "standing" (i.e. vertically placed) though they are, are still described by means of the classifier *tấm* (horizontal position): *tấm cánh cửa* (verb.: clas.+ flap + door) ' a door flap'. This may be explained by the fact that the flap has no independent or isolated position of its own, being attached to the door-frame.

4.2 Relative orientation in description

This type of orientation implies that various classifiers, the use of which depends on definite factors, may describe the same object in different ways. These factors are:

1. The salient character of the object's shape

A particular orientation in description is determined by the concrete shape of the object, as fixed by the viewer at the very moment of speech. For example, a mountain will be described with the help of the classifier *quả* 'fruit' whenever the speaker strives to single out its roundish parts against the background of its spatial properties. But in the case he likes better to "see" its conic form, he would use the classifier *ngọn* 'apex' instead. The use of the classifiers *lá* 'tree-leaf' and *ngọn* 'apex' is similarly correlated to describe a flag. The same factor is also relevant to the cases in which the classifier *con* (conventional translation: 'live being', for animals) is used to describe the zoomorphic appearance of an object, Cf. *dòng sông* (verb.: clas. 'flow' + river) 'a river'—*con sông* (verb.: clas., 'live being' + river) 'a river'.

Sometimes, a choice can be made between two salient properties of shape and position of the same object. Cf. the use of the classifiers *ngọn* 'apex' (alluding to a shape), and *cây* 'tree' (alluding to a vertical position), in: *ngọn bút* (verb.: clas. 'apex' + pen) 'a pen'—*cây bút* (verb.: clas. 'tree' + pen) 'a pen'.

2. Modes of selecting the salient position of an object

Objects like carpets, curtains, blinds, and their like, may have two positions in space: they either "hang" or "lie." Owing to this, one can describe such items depending on what salient position they occupy at the moment of speech—a vertically oriented position or a horizontally oriented one.This is exactly the factor

that predetermines the use of either classifier in the pairs: *bức* (vertical position) and *tấm* (horizontal position); cf.:

- *bức thảm* 'a carpet' (a tapestry covering a wall), and *tấm thảm* 'a carpet' (covering a floor);
- *bức ảnh* 'a photograph' (hanging on a wall), and *tấm ảnh* 'a photograph' (kept in an album).

Here are some more interesting facts in the case of pictures:

a) for framed pictures, only the classifier *bức* (vertical position) may be used, not the classifier *tấm* (horizontal position): *bức tranh* 'a picture';
b) for prints (printed reproductions without a frame), the classifier *tờ* 'paper sheet' is the only one to be used: *tờ tranh* 'a picture, a poster'.

3. The size of the object as salient feature

Objects like pearls are described by two classifiers: *viên*—when of large size, and *hạt* 'grain, seed'—when of small size: Cf. *viên ngọc trai* 'a pearl', and *hạt ngọc trai* 'a (small) pearl'.

5. Towards a provisional conclusion

Pondering the linguistic facts mentioned in this paper, we may assume that in natural languages there are indeed specific ways of classifying and describing objects and their properties (spatial properties in the case of descriptive classifiers).

This inference would be more convincing if we considered the combinations "numerable word + noun of matter," like a bit of wood, and "descriptive 'quasi-classifier' + noun of matter," like *hòn đá* 'a stone'. Here is an example. Some English or Russian sentences seem very strange to Vietnamese people, such as:

- Eng.: *White clouds are flying over us*;
- Russ.: *Ja ljublju smotret' vesennije vody* 'I like to look at springtime waters'. The reason for this is that, in the given instances, the substances "cloud" and "water" are described without the help of any numerable word. Unlike objects, substances can be counted, and may acquire "a shape," only by way of their mass or pieces, or of the products derived from them. Concrete forms in which substances exist are denoted in Vietnamese whenever they are described (by attributes) or counted (by numerals). Thus, the English and Russian sentences quoted above should be translated into Vietnamese as follows:

- Eng. sentence: *Những đám mây trắng đang bay trên đầu chúng tôi* (verb.: number index + **cluster, heap** + cloud + white + time index + fly + over + head + we);
- Russ. sentence: *Tôi thích ngắm nhìn những dòng nước mùa xuân* (verb.: I + like + look + number index + **flow, stream** + water + spring).

The point of these two examples is the necessary presence of two words in Vietnamese: *đám* 'cluster, heap', and *dòng* 'flow, stream', which outline the substances "cloud" and "water."

Examining the use of such words in Vietnamese has opened up prospects for research into the modes of conceptualizing space. I shall return to this topic in a subsequent paper.

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