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Kovalova K. O.
https://orcid.org/0000-0002-9734-5667
National University “Odesa Law Academy”

MATERIAL AS A BASIS FOR CATEGORISATION OF ARTIFACTS IN ENGLISH

The article examines material as a cognitively significant parameter of artifact categorisation and a means of internal differentiation within artifact categories in English. The relevance of the study is determined by the need for a comprehensive account of the interaction between material, perceptual, and functional characteristics in the conceptualisation of the material world, as well as by the insufficiently explored role of textile material as a distinct parameter of artifact subcategorisation. The study aims to determine the cognitive-semantic role of the material feature and to establish the specific characteristics of its linguistic representation in English constructions containing names of fabrics and textile materials. The research material comprises the nominations cotton, wool, silk, linen, denim, velvet, satin, lace, polyester, and nylon, together with structures following the N_1 [MATERIAL] + N_2 [ARTIFACT] model. Cognitive-semantic, definitional, componential, and structural-semantic methods of analysis are employed. The findings demonstrate that material does not constitute a universally dominant feature of an artifact concept; however, it can function as a cognitive classifier facilitating the internal differentiation of an established object category. The heterogeneity of English textile nominations is substantiated, and a distinction between MATERIAL AS SUBSTANCE and MATERIAL AS TEXTILE TYPE is proposed. Three degrees of categorical relevance of the material component are identified: descriptive, subcategorising, and category-forming. A multilevel model of material-oriented categorisation is proposed: MATERIAL – PHYSICAL PROPERTIES – PERCEPTUAL PROFILE – FUNCTIONAL AFFORDANCES – ARTIFACT USE – MATERIAL-BASED SUBCATEGORY – CONTEXTUAL / AXIOLOGICAL INTERPRETATION. The analysis demonstrates that the material feature provides access to a complex body of interconnected knowledge concerning the physical, perceptual, functional, and potentially evaluative characteristics of an artifact.

Keywords: *categorisation, artifact, material, cognitive classifier.*

Statement of the problem. Categorisation is one of the fundamental mechanisms of human cognitive activity, whereby heterogeneous objects, phenomena, and processes of the surrounding reality are assigned to particular classes on the basis of features that are shared or relevant to the perceiving subject. In cognitive linguistics, a category is regarded not merely as the result of classifying objects according to a set of necessary and sufficient characteristics, but as a dynamic structure of knowledge whose organisation depends on perceptual experience, the functional properties of objects, the contexts of their use, and the manner in which they are conceptualised [1, p. 74].

It should be noted that the problem of artifact categorisation is interdisciplinary, as it lies at the intersection of cognitive linguistics, cognitive psychology, philosophy, semantics, and material culture studies. Unlike natural objects, artifacts are associated with human activity, intentions underlying their creation, particular scenarios of use, and functional purposes. At the same time, the categorical membership of an artifact cannot be reduced to a single parameter. Experimental research conducted by B. C. Malt and E. C. Johnson has demonstrated that function is not always a sufficient or necessary condition for assigning an object to a particular artifact category and that categorical judgements may be significantly influenced by the physical properties of the object [2, p. 195].

Within this approach, particular attention should be paid to the material from which an artifact is made. Material constitutes an objective physical characteristic of an object; however, its cognitive function is not limited to information about its material composition. It determines or constrains a range of properties of an object, including its weight, texture, strength, elastic-

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ity, thermal conductivity, permeability, surface characteristics, and tactile and visual qualities. Through these properties, material is associated with the functional potential of an object, scenarios of its use, and its evaluation.

English names of fabrics and textile materials, such as cotton, wool, silk, linen, denim, velvet, satin, lace, polyester, and nylon, among others, are considered particularly representative material for the investigation of this phenomenon. In English, they regularly enter into attributive relations with names of artifacts: cotton shirt, silk dress, wool coat, linen trousers, denim jacket, velvet curtains, satin ribbon, nylon stockings. In such constructions, the name of the material does not alter the basic functional membership of the object: a silk dress remains a representative of the category DRESS, while a wool coat remains a member of the category COAT. At the same time, the material component specifies the respective category and forms an internal subcategory within it.

The relevance of the study is determined by the need for a comprehensive description of the interaction between material, perceptual, and functional characteristics in the conceptualisation of the material world, as well as by the insufficient attention paid to the role of textile material as a distinct parameter of artifact categorisation.

Analysis of recent research and publications. The theoretical foundations of the present study comprise works on the theory of categorisation, the semantics of artifact concepts, the functional nature of artifacts, and English textile terminology.

Within cognitive linguistics, categorisation is regarded as one of the fundamental mechanisms underlying the organisation of conceptual knowledge. W. Croft and D. A. Cruse systematically examine classical, prototype-based, and frame-based models of categorisation and emphasise the necessity of taking into account contextual interpretation and the dynamic nature of conceptual construal [1, p. 74].

The question of which characteristics are decisive in artifact categorisation has been addressed in specialised psycholinguistic studies. B. C. Malt and E. C. Johnson experimentally tested the hypothesis that function constitutes the "core" of an artifact concept. Their findings demonstrated that the presence of a typical function does not guarantee an object's categorical membership, just as the loss or absence of its standard function does not necessarily result in its exclusion from the category. In a number of experimental situations, physical properties exerted a greater influence on categorical judgements than functional properties [2, p. 195]. This conclusion is particularly significant for the present study, as it provides grounds for considering materiality not as a secondary characteristic of an artifact but as one of the cognitively significant parameters of its representation.

A different approach was proposed by P. Bloom, who associates the understanding of artifact categories with an intentional-historical component. According to the researcher, determining what a human-made object actually is may depend on an understanding of the intention with which it was created. Accordingly, the categorical membership of an artifact cannot be reduced either to its external form or to its current mode of use [3, p. 3].

Further development of this issue can be found in the works of B. C. Malt and S. A. Sloman. The researchers examine the relationship between the creator's intention, the naming of an object, and judgements concerning its "real" categorical membership, demonstrating that the influence of intention cannot be explained in the same way for all types of categorical judgement [4, p. 615]. In a broader discussion of artifact categorisation, the authors also demonstrate the complexity of the interaction between function, form, origin, intention, and other characteristics in the formation of artifact categories [5, p. 85].

A substantial contribution to understanding the functional component has been made within the HIPE model developed by L. W. Barsalou, S. A. Sloman, and S. E. Chaigneau. Within this model, function is regarded not as an isolated property of an object but as a complex relational construct arising from the interaction between an object's history, intentional perspective, physical environment, and event sequences [6, p. 131].

Within the philosophy of artifacts, W. Houkes and P. E. Vermaas critically examine the tendency to reduce the essence of artifacts exclusively to their functions and propose that artifacts should instead be considered through the relationship between objects, functions, and human actions [7, p. 52]. B. Preston extends this discussion within the context of material culture, emphasising the relationship between the functions of objects, practices of their use, and social processes [8, p. 131].

Textile nomenclature itself possesses a number of specific features. Textile Terms and Definitions, prepared by The Textile Institute, systematises approximately four thousand terms covering fibres, yarns, fabrics, manufacturing processes, finishing, clothing, and other segments of the textile domain [9]. The historical instability of textile categories is convincingly demonstrated by P. Leech in a study of fabric termi-

nology based on the Oxford English Dictionary. The author shows that English textile vocabulary developed under conditions involving changes in referents, technologies, and commercial contacts, and that fabric names did not constitute an entirely stable system. At the same time, a substantial proportion of historical textile nominations can be related to such material superordinates as wool, linen, hemp, silk, and cotton [10, p. 433].

Thus, existing research provides detailed accounts of the functional, intentional, historical, and physical factors involved in artifact categorisation. Nevertheless, material as an independent cognitive parameter of artifact subcategorisation, particularly with reference to English textile nominations, requires separate systematic investigation**.**

Task statement. The purpose of the article is to determine the cognitive-semantic role of the material parameter in artifact categorisation and to establish the specific features of its linguistic representation in English constructions containing names of fabrics and textile materials. Achieving this aim involves the following objectives: to determine the position of the material feature among the parameters of artifact categorisation; to distinguish between the functional and material principles of artifact classification; to establish the principal types of relationships between material nominations and artifact nominations; to characterise the conceptual potential of the English nominations cotton, linen, wool, silk, denim, velvet, satin, lace, polyester, and nylon; and to propose a model of material-oriented artifact subcategorisation.

The object of the study is English nominations of fabrics and textile materials in their relationship with names of artifacts. The subject of the study comprises the cognitive-semantic mechanisms of material-oriented artifact categorisation represented by the corresponding nominative structures.

The methodological framework of the study comprises cognitive-semantic, definitional, componential, and structural-semantic analysis. Given the absence of a statistically representative corpus sample at the present stage of the research, no quantitative claims concerning the frequency of individual models are made. The linguistic units presented in the study are used to identify types of conceptual relationships, while their quantitative corpus-based verification is regarded as a separate subsequent stage of the research.

Outline of the main material of the study. The starting point of the study is the distinction between an artifact as an object, the material of an artifact, and the conceptual representation of an artifact. Material is the physical substance from which an object is made; however, in the process of categorisation, information about material becomes integrated into a system of knowledge concerning the object's properties and potential uses. The material component should therefore not be equated with the artifact concept itself.

For most functionally defined artifacts, the basic category remains unchanged irrespective of the specific material involved. A dress remains a dress whether it is made of silk, cotton, linen, or velvet; a coat may be a wool, cotton, or polyester coat. In such cases, functional-object categorisation logically precedes material specification: ARTIFACT – FUNCTIONAL CATEGORY – MATERIAL-BASED SUBCATEGORY.

At the linguistic level, this relationship is regularly realised through the model: N_1 [MATERIAL] + N_2 [ARTIFACT], where N_2 denotes the basic object category, while N_1 specifies the material: silk dress, cotton shirt, linen trousers, wool coat, denim jacket, velvet curtains, satin ribbon, nylon stockings.

At first sight, N_1 performs a purely descriptive function. However, the cognitive significance of material is broader, since the name of a material potentially activates a body of knowledge concerning its physical characteristics. In the case of textile materials, these parameters include surface structure, thickness, weight, elasticity, strength, the ability to retain heat or allow air to pass through, draping properties, and visual and tactile characteristics. Information concerning MATERIAL is therefore systematically related to information concerning PROPERTY. This relationship may be represented as follows: MATERIAL – PHYSICAL PROPERTIES – PERCEPTUAL PROPERTIES.

At the same time, physical properties do not exist in isolation from the practical use of an object; they create particular possibilities and constraints affecting its functioning. Accordingly, material may influence the functional suitability of an artifact, although it does not necessarily determine its basic categorical membership in itself. On this basis, the following extended model is proposed: MATERIAL – PHYSICAL/PERCEPTUAL PROPERTIES – FUNCTIONAL POTENTIAL – ARTIFACT USE – SUBCATEGORISATION.

This model may be illustrated through several groups of textile nominations.

The nominations cotton, wool, silk, and linen are primarily associated with the material basis of textile production. When used attributively, the material characteristic is superimposed upon an already established artifact category: cotton shirt, wool coat, silk scarf, linen trousers. At the same time, each of these

units activates a different body of knowledge concerning the respective material. Thus, cotton shirt and silk shirt belong to the same functional-object category SHIRT but represent different materially specified subcategories.

Importantly, textile nominations are not homogeneous in terms of their principles of categorisation. Cotton, wool, silk, linen, polyester, and nylon are primarily associated with the origin or type of fibrous material. By contrast, denim, velvet,and satin represent another level of textile categorisation in which the structure of the fabric, its method of production, or the characteristics of its surface become relevant. Lace likewise cannot unreservedly be placed within the same classificatory series as cotton or wool.

This heterogeneity is also confirmed by specialised textile terminography. Textile Terms and Definitions encompasses different levels of the textile system, ranging from fibres and yarns to weaving techniques, finished fabrics, and clothing [9]. P. Leech's historical analysis likewise demonstrates that fabric terms can be grouped according to yarn material, although their actual historical semantics are considerably more complex and change alongside manufacturing and commercial practices [10, pp. 433–469].

Accordingly, for the analysis of the concept FABRICS, it is appropriate to distinguish at least two types of material information: MATERIAL AS SUBSTANCE: information concerning the fibrous or raw-material basis (cotton, wool, silk, linen, polyester, nylon); MATERIAL AS TEXTILE TYPE: information concerning the structural and technological type of textile material (denim, velvet, satin, lace).

The next aspect concerns the relationship between material and functional categorisation. The study by B. C. Malt and E. C. Johnson indicates that function does not constitute a universal "core" of all artifact concepts and that physical properties may significantly influence categorical decisions [2, p. 195]. This does not, however, imply that material automatically becomes the primary criterion of artifact categorisation. On the contrary, constructions such as silk dressand denim jacket demonstrate a hierarchical relationship between the two principles: the object category is established by the second component, whereas the material component provides its further profiling.

On this basis, we propose distinguishing three degrees of categorical relevance of the material component. The first degree is descriptive. Material specifies the physical composition of an object without creating a conceptually autonomous category. The second degree is subcategorising. Material becomes a stable parameter of the internal differentiation of an object category. Models such as silk dress, wool coat, cotton shirt, and denim jacket belong to this type. The material characteristic does not eliminate the basic category but profiles one of its varieties. The third degree is category-forming, whereby the material characteristic becomes so closely associated with a particular type of object or practice of use that the corresponding nomination may undergo lexicalisation or metonymic reinterpretation. Particular caution is required at this level, since it cannot be established solely on the basis of semantic intuition. Lexicographic evidence and corpus-based verification of the independent object-denoting use of a particular nomination are necessary. The proposed model does not imply that every textile nomination necessarily passes through all three stages. Rather, these represent different possible degrees of integration of the material parameter into the conceptual structure of an artifact.

Another consequence of material-based subcategorisation is the formation of a conceptual profile of the material, whereby the nomination of a material potentially activates not a single characteristic but a complex of interconnected features. It is therefore necessary to distinguish between the objective properties of a material and their subsequent cognitive and evaluative interpretation. For example, a particular textile structure may possess specific tactile or visual characteristics; within linguistic consciousness, these may be associated with comfort, practicality, delicacy, formality, or other evaluative characteristics. The conceptual profile may therefore be modelled as the following sequence: MATERIAL – INHERENT PROPERTIES – PERCEPTUAL EXPERIENCE – FUNCTIONAL AFFORDANCES – EVALUATION. The first two components are most closely related to the objective characteristics of the material. The subsequent components depend on human interaction with the object and on the specific context in which it is used. The final component displays the greatest degree of cultural and discursive variability. This approach makes it possible to explain why a material characteristic may participate not only in object categorisation but also in the axiological conceptualisation of an artifact.

As a result of the analysis, material-oriented artifact categorisation is proposed to be regarded as a multilevel cognitive mechanism in which material occupies an intermediate position between the physical structure of an object and its functional and evaluative interpretation: MATERIAL – PHYSICAL PROPERTIES – PERCEPTUAL PROFILE – FUNCTIONAL AFFORDANCES – ARTIFACT USE – MATERIAL-

BASED SUBCATEGORY – CONTEXTUAL / AXIOLOGICAL INTERPRETATION.

In contrast to a model in which material is treated merely as a differential semantic feature, the proposed approach makes it possible to regard it as a cognitive classifier providing access to a complex of interconnected knowledge about an object. Material, however, is not regarded as a universal essential feature of an artifact: its categorical weight depends on the type of object, its functional category, the nature of the material, and the communicative context.

Conclusions. The study has established that material constitutes a cognitively significant, although not universally dominant, parameter of artifact categorisation. The basic categorical membership of a substantial proportion of human-made objects is formed through the interaction of functional, physical, intentional, and historical characteristics. Within this system, material is capable of functioning as an additional cognitive classifier that facilitates the internal differentiation of an already established artifact category.

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Ковальова К. О. МАТЕРІАЛ ЯК ОСНОВА КАТЕГОРИЗАЦІЇ АРТЕФАКТІВ В АНГЛІЙСЬКІЙ МОВІ

У статті досліджено матеріал як когнітивно значущий параметр категоризації артефактів та засіб внутрішньої диференціації артефактних категорій в англійській мові. Актуальність дослідження зумовлена необхідністю комплексного опису взаємодії матеріальних, перцептивних і функціональних характеристик у концептуалізації предметного світу та недостатньою вивченістю ролі текстильного матеріалу як окремого параметра артефактної субкатегоризації. Метою роботи є визначення когнітивно-семантичної ролі матеріальної ознаки та встановлення особливостей її мовної репрезентації в англійських конструкціях із номінаціями тканин та текстильних матеріалів. Матеріалом дослідження слугували номінації cotton, wool, silk, linen, denim, velvet, satin, lace, polyester, nylon та утворені за їх участю структури типу N_1 [MATERIAL] + N_2 [ARTIFACT]. В дослідженні було застосовано когнітивно-семантичний, дефініційний, компонентний і структурно-семантичний методи аналізу. Встановлено, що матеріал не є універсально домінантною ознакою артефактного концепту, проте може функціонувати як когнітивний класифікатор, що забезпечує внутрішню диференціацію вже сформованої предметної категорії. Обґрунтовано неоднорідність англійських текстильних номінацій та запропоновано розмежовувати MATERIAL AS SUBSTANCE і MATERIAL AS TEXTILE TYPE. Було виділено три ступені категоріальної релевантності матеріального компонента: дескриптивний, субкатегоріальний та категорієформувальний; та запропоновано багаторівневу модель матеріально орієнтованої категоризації: MATERIAL – PHYSICAL PROPERTIES – PERCEPTUAL PROFILE – FUNCTIONAL AFFORDANCES – ARTIFACT USE – MATERIAL-BASED SUBCATEGORY – CONTEXTUAL / AXIOLOGICAL INTERPRETATION. Аналізом було доведено,

що матеріальна ознака забезпечує доступ до комплексу взаємопов'язаних знань про фізичні, перцептивні, функціональні та потенційно оцінні характеристики артефакту.

Ключові слова: *категоризація, артефакт, матеріал, когнітивний класифікатор.*

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