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**FACTORS OF ASYMMETRIC OBJECT MARKING
IN MODERN HEBREW**

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CONTENTS

INTRODUCTION

In recent decades, many studies in the field of syntax have been aimed less at studying a strict set of grammatical rules, which guide a native speaker to form the correct phrases to express oneself, and more at understanding the cognitive processes inducing the speaker to choose a specific expression, or use a specific way of encoding certain semantic-syntactic relations.

Based on the already widely discussed *coding strategies*, observed in various languages with different structures, the so called (nominative) accusative, ergative, active, etc. (see, for example, the works of B. Comrie[1], R. Dixon[2], J. Nichols[3], G. Lazard[4], B. Primus[5], A.E. Kibrik[6], Y.G. Testelets[7], P.M. Arkadyev[8], A.L. Malchukov and P. de Swart[9], E.A. Lyutikova[10], M. Haspelmath[11]), within the

[1] Comrie B. Ergativity // Syntactic Typology: Studies in the Phenomenology of Language. Lehmann, Winfred P. (ed.). Austin: University of Texas Press. 1978. Pp. 329-394; Comrie B. Language universals and linguistic typology: Syntax and morphology. 2nd ed. Chicago: University of Chicago Press. 1989. 264 p.

[2] Dixon R.M.W. Ergativity // Language. 1979. Vol. 55(1). Pp. 59-138.

[3] Nichols J. Linguistic diversity in space and time. Chicago and London: The University of Chicago Press, 1992. 358 p.

[4] Lazard G. The Actance. Paris: Presses Universitaires de France, 1994. 265 p.; Lazard G. Le marquage différentiel de l'objet // Language typology and language universals: An international handbook / M.Haspelmath, E.König, W. Oesterreicher, W. Raible (eds.). Vol. 2. Berlin, 2001. Pp. 873–885.

[5] Primus B. Cases and Thematic Roles: Ergative, Accusative and Active. Berlin, New York: Max Niemeyer Verlag, 1999. 285 p.

[6] Kibrik A.E. Ocherki po obshchim i prikladnym voprosam yazykoznaniya (universal'noye, tipovoye i spetsifichnoye v yazyke) [Essays on general and applied issues of linguistics (universal, typical and specific in the language)]. Moscow: Izdatel'stvovo. MGU, 1992. 336 p.; Kibrik A.E. Konstanty i peremennyye yazyka [Language constants and variables]. St. Petersburg: Aleteiya, 2003. 719 p.

[7] Testelets Y.G. Grammaticheskiye iyerarkhii i tipologiya predlozheniya [Grammatical hierarchies and typology of sentences]: dissertation ... Doctor of Philological Sciences in the form of scientific report: 10.02.20. Moscow, 2003. 78 p.

[8] Arkadyev P.M. Teoriya padezhnogo markirovaniya v svete dannykh dvukhpadezhnykh sistem [Theory of case marking in the light of data from two-case systems] // Voprosy yazykoznaniya [Questions of Linguistics]. 2008. No. 5. Pp. 34-62; Arkadyev P.M. Funktsional'no-semanticheskaya tipologiya dvukhpadezhnykh sistem [Functional and semantic typology of two-case systems] // Voprosy yazykoznaniya [Questions of Linguistics]. 2005. No.4. Pp. 101-120.

[9] Malchukov A., de Swart P. Differential case marking and actancy variation // The Oxford Handbook of Case / A. Malchukov, A. Spencer (eds.). Oxford: Oxford University Press, 2009. P. 339–355.

[10] Lyutikova E.A. Differentsirovannoye markirovaniye argumentov v formal'nykh modelyakh padezha [Differential Marking of Arguments in Formal Case Models] // Acta Linguistica

framework of this trend, in recent decades, several theories of Differential Argument Marking (DAM) have been proposed and led to extensive discussion. The constant interest of researchers gives rise, on the one hand, to a number of studies of various languages the world (for example, Germanic[12], Indo-Iranian and Indo-Aryan[13], Finno-Ugric[14], Turkic[15], Niger-Congolese[16], Nakh-Dagestan[17], and

Petropolitana. Trudy instituta lingvisticheskikh issledovaniy [Proceedings of the Institute for Linguistic Research]. 2017. Volume XIII. No.3. Pp. 11-40.

[11] Haspelmath M. Role-reference associations and the explanation of argument coding splits // Linguistics. Vol. 59. No. 1. 2021. Pp. 123-174.

[12] Rappaport Hovav M., Levin B. The English dative alternation: The case for verb sensitivity // Journal of Linguistics. 2008. Vol. 44. Pp. 129-167; Ruigendijk E., Friednmann N. On the relation between structural case, determiners, and verbs in agrammatism: A study of Hebrew and Dutch // Aphasiology. 2008. Vol. 22(9). Pp. 948–969.

[13] On the Indo-Iranian languages see: Bashir E. Beyond split ergativity: subject marking in Wakhi // Proceedings of the 22nd Regional Meeting (CLS 22). Chicago: Chicago Linguistic Society. 1986. Pp. 14-35; Arkadyev P.M. Dvukhpadezhnyye sistemy v indoiranskikh yazykakh: Tipologicheskaya perspektiva [Two-case systems in Indo-Iranian languages: Typological perspective] // Indoiranskoye yazykoznaniye i tipologiya yazykovykh situatsiy. Sbornik statey k 75-letiyu professora Aleksandra Leonovicha Gryunberga (1930–1995) [Indo-Iranian linguistics and typology of language situations. Collection of articles for the 75th anniversary of Professor A.L. Grunberg (1930 – 1995)] / M.N. Bogolyubov (ed.). St. Petersburg: «Science». 2006. Pp. 74–92; on the Indo-Aryan languages, see: De Hoop H., Narasimhan B. Differential case-marking in Hindi // Competition and variation in natural languages: The case for case / M. Amberber, H. de Hoop (eds.). Amsterdam: Elsevier, 2005. Pp. 321-345..

[14] Serdobolskaya N.V., Toldova S.Yu. Nekotoryye osobennosti oformleniya pryamogo dopolneniya v mariyskom yazyke [Some features of the direct object coding in the Mari language] // Lingvisticheskiy bespredel. Sbornik statey k 70-letiyu A.I. Kuznetsovoy [Linguistic lawlessness. Collection of articles dedicated to the 70th anniversary of A.I. Kuznetsova]. Moscow, 2002. Pp. 106-124; Serdobolskaya N.V., Toldova S.Yu. Differentsirovannoye markirovaniye pryamogo dopolneniya v finno-ugorskikh yazykakh [Differential Marking of Direct Complement in Finno-Ugric Languages] // Finno-ugorskiye yazyki: fragmenty grammaticheskogo opisaniya. Formal'nyy i funktsional'nyy podkhody [Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches]. Moscow: Yazyki slavyanskikh kul'tur. 2012. Pp. 59-142; Serobolskaya N.V. Animation and Marking of Direct Complement in the Besermyan Corpus // Yearbook of Finno-Ugric Studies. 2019. №2. S. 205-215.

[15] Heusinger K., Kornfilt J. The Case of the Direct Object in Turkish: Semantics, Syntax and Morphology // Turkish Languages. 2005. Vol. 9. Pp. 3-44; Heusinger K., Kornfilt J. Partitivity and case marking in Turkish and related languages // Glossa: a journal of general linguistics. 2017. Vol. 2(1). Pp. 1-40.

[16] Zheltov A.Yu. Yazyki niger-kongo: strukturno-dinamicheskaya tipologiya [Languages of the Niger-Congo: Structural-Dynamic Typology]. St. Petersburg: St. Petersburg University Press, 2008. Pp. 183-211; Konoshenko M. Differentsirovannoye markirovaniye aktantov v yugo-zapadnykh i yuzhnykh yazykakh mande [Differential marking of arguments in the southwestern and southern Mande languages] // Acta Linguistica Petropolitana. Trudy instituta lingvisticheskikh issledovaniy [Proceedings of the Institute for Linguistic Research]. 2017. No.3. Pp. 393-413.

also Semitic[18]), and on the other hand, leads to the development of a more detailed argument coding system.

Today, along with Differential Subject Marking[19] the possessor marking alternations, observed in different languages[20], researches focus on Differential Object Marking (DOM)[21], which, according to typological studies, is found in almost all languages that implement the accusative argument coding strategy[22]. An extensive literature is devoted to this phenomenon, including, among other things, a number of studies on syntax, semantics, morphology, comparative linguistics and discursive analysis, citing the facts from various world languages[23]. In addition to

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[17] Kibrik A.E. K probleme yadernykh aktantov i ikh «nekanonicheskogo kodirovaniya»: Svidetel'stva archinskogo yazyka [On the problem of nuclear arguments and their «non-canonical coding»: Evidence of the Archa language] // Voprosy yazykoznaniya [Questions of Linguistics]. 2000. No. 5. Pp. 32-67.

[18] Khan G.A. Object markers and agreement pronouns in Semitic languages // Bulletin of the School of Oriental and African Studies Vol. 47. No. 3. 1984. Pp. 468-500; Danon G. Caseless nominals and the projection of DP // Natural Language & Linguistic Theory 24(4). 2006. Pp. 977–1008; Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. PhD thesis, Hebrew Union College–Jewish Institute of Religion. 2012. 287 p.; Hacohen A., Kagan O., Plaut D. Differential Object Marking in Modern Hebrew: Definiteness and partitivity // Glossa: a journal of general linguistics. 2021. Vol. 6(1). Pp. 1-34.

[19] Подробнее см., например, Differential Subject Marking. Studies in Natural Language and Linguistic Theory / de Hoop H., de Swart P. (eds). Springer, Dordrecht. 2009. 312 p.; Amberber M. Differential Subject Marking in Amharic // Perspectives on Cognitive Science, Competition and Variation in Natural Languages / M. Amberber, H. De Hoop (eds.). 2005. Pp. 295-317.

[20] At the moment, it is not customary to single out differential possessor marking as a separate phenomenon. For more details, see, for example, Lyutikova E.A. Differentsirovannoye markirovaniye argumentov v formal'nykh modelyakh padezha [Differential Marking of Arguments in Formal Case Models]. P. 17.

[21] In this study, we will use the terms «differential object marking» and «differential marking of the object (Russian: dopolneniye)» as synonymous.

[22] Jäger G. Evolutionary game theory and typology: A case study // Language. 2007. Vol. 83(1). P. 102.

[23] See, for example, Bossong G. Empirische Universalienforschung. Differentielle Objektmarkierung in neuiranischen Sprachen. Tübingen: Narr, 1985. 185 p.; Aissen J. Differential object marking: Iconicity vs. economy // Natural Language & Linguistic Theory. 2003. 21(3). Pp. 435–483; Dalrymple, M., Nikolaeva I. Objects and information structure. Cambridge: Cambridge University Press. 2011. 247 p.; Serdobolskaya N.V., Toldova S.Yu. Differential marking of the direct object in the Finno-Ugric languages // Finno-Ugric languages: fragments of a grammatical description. Formal and functional approaches. M.: Languages of Slavic cultures. 2012. C. 59-142; Sinnemäki K. A typological perspective on Differential Object Marking // Linguistics. 2014. Vol. 52(2). Pp. 281–313; Haspelmath M. Differential place marking and differential object marking // STUF - Language Typology and Universals. Vol. 72. 2019. No. 3. Pp. 313-334, etc.

studying the empirical data of different languages, authors attempt to create a unified theory that would explain the alternations in object marking. At the moment, there are several approaches to explaining the principles of DOM. Most of them appeal to the principles of *economy* (the language aims to use the minimum amount of words sufficient for communication) and *disambiguation* (in a situation with several participants, the encoding of each one should provide the ability to distinguish between them). The most well-known is the so-called «optimality theory», the basic principles of which are discussed by J. Aissen[24]. J. Aissen proposes the parameters «definiteness» (citing Modern Hebrew as an example) and «animation» to be the principle factors of DOM. Other approaches consider the DOM in terms of transitivity («the transitivity theory», based on the ideas proposed by P. Hopper and S. Thompson[25], who interpret DOM as variations of the O-participant in a transitive clause encoding) or iconicity[26]. The discussion of different approaches is actively ongoing at the present time, and uses the ever-expanding range of linguistic data obtained from various languages to support or challenge the generally accepted notions.

Typological studies of Differential Object Marking also remark on the opposition of the «symmetric» and «asymmetric» types of DOM[27]. With symmetric type marking, the variability of object encoding is realized by the use of different case markers, while with asymmetric type, the alternation is between a zero marker and an accusative marker. In Modern Hebrew, both symmetric and asymmetric types of object marking are realized, but the former is implemented with a very limited group of verbs and is often not even included in the DOM

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[24] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483.

[25] Hopper P., Thompson S. Transitivity in grammar and discourse // Language. 1980. Vol. 56. Pp. 251–299.

[26] Arkadyev P.M. Dvukhpadezhnyye sistemy v indoiranskikh yazykakh: Tipologicheskaya perspektiva [Two-case systems in Indo-Iranian languages: Typological perspective] // Indoiranskoye yazykoznaniye i tipologiya yazykovykh situatsiy. Sbornik statey k 75-letiyu professora Aleksandra Leonovicha Gryunberga (1930–1995) [Indo-Iranian linguistics and typology of language situations. Collection of articles for the 75th anniversary of Professor A.L. Grunberg (1930 – 1995)] / M.N. Bogolyubov (ed.). St. Petersburg: «Science». 2006. Pp. 74–92.

[27] Malchukov A., de Swart P. Differential case marking and actancy variation. P. 347.

phenomenon[28]. Thus, the **object of research** in this study is the phenomenon of Differential Object Marking, while the **subject of research** is the features of asymmetric object marking, as the most common and regularly encountered method of encoding an object in transitive clauses in Modern Hebrew.

Thus, the **relevance of the research topic** is based upon the important role that the DOM phenomenon research plays in the development of a single comprehensive theory explaining the variability of argument coding, which is currently being actively discussed by both Russian and foreign researchers, and clarification of the accusative constructions' features, in particular, of the factors licensing DOM in Modern Hebrew, the approach to which at the moment, in our opinion, is not comprehensive enough, will make a significant contribution to the development of this theory.

Theoretical basis of the study. First of all, this thesis is based on a broad spectrum of theoretical research in the field of case marking in general and Differential Argument Marking, in particular, represented, among others, by the fundamental works by C. Fillmore[29], M. Silverstein[30], B. Comrie[31], I.Sh. Kozinsky[32], J. Nichols[33], G. Lazard[34], B. Primus[35], A.E. Kibrik[36], Y.G. Testelets[37],

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[28] Plaut D., Hacohen A. The acquisition of Hebrew Differential Object Marking: Between production and comprehension // Journal of Child Language Acquisition and Development. 2022. Vol: 10(4). Pp. 627-652.

[29] Fillmore C. Delo o padezhe otkryvayetsya vnov' [The case of the case opens again] // Novoye v zarubezhnoy lingvistike [New in foreign linguistics]. Moscow, 1981. Vol. 10. Pp.496-531.

[30] Silverstein M. Hierarchy of Features and Ergativity // Grammatical Categories in Australian Languages / Dixon, R. M. W. (ed.). Canberra: Australian National University, 1976. Pp. 112-171.

[31] Comrie B. Ergativity. Pp. 329-394.

[32] Kozinsky I.Sh. Nekotoryye grammaticheskiye universalii v podsistemakh vyrazheniya sub"yektno-ob"yektnykh otnosheniy [Some grammatical universals in subsystems of expression of subject-object relations]. Diss.... Cand. Philol. Sciences. Moscow, 1979. 225 p.

[33] Nichols J. Linguistic diversity in space and time. 358 p.

[34] Lazard G. The Actance. 265 pp.; Lazard G. The differential marking of the object. Pp. 873–885.

[35] Primus B. Cases and Thematic Roles … 285 p.

[36] Kibrik A.E. Ocherki po obshchim i prikladnym voprosam yazykoznaniya (universal'noye, tipovoye i spetsifichnoye v yazyke) [Essays on general and applied issues of linguistics (universal, typical and specific in the language)]. Moscow: Izdatel'stvovo. MGU, 1992. 336 p.; Kibrik A.E. Konstanty i peremennyye yazyka [Language constants and variables]. St. Petersburg: Aleteiya, 2003. 719 p.

P.M. Arkadyev[38], A.L. Malchukov and P. de Swart[39], E.A. Lyutikova[40], M. Haspelmath[41]. Of great importance are also studies pertaining to DOM itself. Among the fundamental works, we'll name the studies by G. Bossong [42], P. Hopper and S. Thompson[43], J. Aissen[44], G. Khan[45], M. Darimple and I. Nikolaeva[46], A.L. Malchukov and P. de Swart[47], as well as the research done by M.B. Konoshenko[48], N.V. Serdobolskaya and S.Yu. Toldova[49], who offer valuable methodology for implementing a multifactorial approach to DOM based on a specific language data. The topic of semantic roles, in particular agent and patient, which is of great importance for the study of DOM, is discussed by R. Dixon[50], B. Comrie[51] (including in collaboration with E. Keenan[52]), W. Foley and R. Van

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[37] Testelets Y.G. Grammaticheskiye iyerarkhii i tipologiya predlozheniya [Grammatical hierarchies and typology of sentences]: dissertation ... Doctor of Philological Sciences in the form of scientific report: 10.02.20. Moscow, 2003. 78 p.

[38] Arkadyev P.M. Teoriya padezhnogo markirovaniya v svete dannykh dvukhpadezhnykh sistem [Theory of case marking in the light of data from two-case systems]. Pp. 34-62; Arkadyev P.M. Funktsional'no-semanticheskaya tipologiya dvukhpadezhnykh sistem [Functional and semantic typology of two-case systems]. Pp. 101-120.

[39] Malchukov A., de Swart P. Differential case marking and actancy variation. P. 339–355.

[40] Lyutikova E.A. Differentsirovannoye markirovaniye argumentov v formal'nykh modelyakh padezha [Differential Marking of Arguments in Formal Case Models]. Pp. 11-40.

[41] Haspelmath M. Role-reference associations and the explanation of argument coding splits. Pp. 123-174.

[42] Bossong G. Empirische Universalienforschung. 185 p.

[43] Hopper P., Thompson S. Transitivity in grammar and discourse. Pp. 251–299.

[44] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483..

[45] Khan G. Object markers and agreement pronouns in Semitic languages // Bulletin of the School of Oriental and African Studies Vol. 47. No. 3. 1984. Pp. 468-500.

[46] Dalrymple M., Nikolaeva I. Objects and information structure. 247 p.

[47] Malchukov A., de Swart P. Differential case marking and actancy variation. P. 339–355.

[48] Konoshenko M.B. Differentsirovannoye markirovaniye ob"yekta v kalmytskom yazyke [Differential marking of the object in the Kalmyk language] // Issledovaniya po grammatike kalmytskogo yazyka. Trudy instituta lingvisticheskikh issledovaniy [Studies on the grammar of the Kalmyk language. Proceedings of the Institute of Linguistic Research]. St. Petersburg: Nauka, 2009. Vol. V. No. 2. Pp. 42-75.

[49] Serdobolskaya N.V., Toldova S.Yu. Nekotoryye osobennosti oformleniya pryamogo dopolneniya v mariyskom yazyke [Some features of the direct object coding in the Mari language]. Pp. 106-124.; Serdobolskaya N.V., Toldova S.Yu. Differential Marking of Direct Complement in Finno-Ugric Languages // Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches. Moscow: Languages of Slavic cultures. 2012. S. 59-142.

[50] Dixon R.M.W. Ergativity. Pp. 59-138.

[51] Comrie B. Language universals and linguistic typology … 264 p.

Valin[53], R. Van Valin and R. LaPolla[54], J. Bresnan and J. Kanerva[55] and D. Dowty[56].

A large number of research studies have been done on the factors that regulate the differential marking of a direct object. One of the central parameters discussed is «definiteness», which, in the framework of the aforementioned approach by J. Aissen, is considered as one of the two main factors of DOM and us cited as the only factor of DOM in Modern Hebrew. The general theoretical background for understanding the concepts of «definiteness» and «determination» is based upon the publications by I.A. Melchuk[57] and J. Hawkins[58], as well as several studies of various elements linked to the process of actualization, which in foreign linguistics are most often referred to by the term «determiners»[59].

The issues of referential status and pragmatically significant features of referents in the discourse are thoroughly researched by Russian linguists N.D. Arutyunova[60], E.V. Paducheva[61], A.D. Shmelev[62], who offer a detailed typology of

[52] Keenan E. L., Comrie B. Noun phrase accessibility and universal grammar // Linguistic Inquiry. 1977. Vol. 8(1). Pp. 63-99.

[53] Foley W. A., Van Valin R. D. Functional Syntax and Universal Grammar. Cambridge: Cambridge University Press, 1984. 432 p.

[54] Van Valin R., LaPolla R. J. Syntax: Structure, meaning, and function. Cambridge textbooks in linguistics. Cambridge: Cambridge University Press, 1997. 741 p.

[55] Bresnan J., Kanerva J. Locative inversion in Chichewa: A case study of factorization of grammar // Linguistic Inquiry. 1989. Vol. 20(1). Pp. 1-50.

[56] Dowty D. Thematic proto-roles and argument selection // Language. 1991. Vol. 67(3). Pp. 547-619.

[57] Melchuk I. A. Kurs obshchey morfologii [Course of General Morphology]. T. 2. / I. A. Melchuk; general editorship by E. N. Savvin, N. V. Pertsov; transl. from fr. V. A. Plungyan. Moscow - Vienna: Yazyki russkoy kul'tury, 1998. 544 p.

[58] Hawkins J.A. Definiteness and indefiniteness: a study in reference and grammaticality prediction. London: Croom Helm, 1978. 316 p.

[59] Yakovenko O.V. Kognitivno-semanticheskiye svoystva determinativov v angliyskom yazyke [Cognitive-semantic properties of determiners in English]: Dis. ... Cand. Philol. Sciences: 10.02.04. Pyatigorsk, 2005. 201 p.; Gianollo C., Heusinger K., Napoli M. Reference and Quantification in Nominal Phrases: The Current Landscape and the Way Ahead // Determiners and Quantifiers. Leiden, The Netherlands: Brill, 2022. Pp. 1-28, etc.

[60] Arutyunova N.D. Predlozheniye i yego smysl: Logiko-semanticheskiye problemy [The sentence and its meaning: Logical and semantic problems] / Academy of Sciences of the USSR. Institute of Linguistics. Moscow: Nauka, 1976. 383 p.

[61] Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. Moscow: Nauka. 1985. 293 p.; Paducheva E.V. Referentsial'nyy status imennoy gruppy [Referential status of the noun phrase] // Russkaya korpusnaya grammatika

referential and non-referential noun phrases (NPs). The main principles of the cognitive-oriented approach to the process of generating speech, explaining the referential choice of the speaker, on which this study is based, are outlined by W. Chafe[63], A.A. Kibrik[64], E. Prince[65], J. Gundel, N. Hedberg and R. Zakarski[66], as well as in the works of T. Givón[67], who analyzes the relationship between reference and topicality (in general, as well as based on Hebrew data), and offers a statistically based methodology for analyzing the degree of referent topicality.

A wide range of studies in recent years have been devoted to the theoretical understanding of «animacy», as both a reality and linguistic phenomenon. In addition to the classic work by L. Hjelmslev (1972)[68] this study is based on the ideas, published by P. de Swart in collaboration with H. de Hoop[69] and T.

[Russian Corpus Grammar]. 2017. [Electronic source] URL: http://rusgram.ru/new/chapter/label/Референциальный_статус_именной_группы/ (accessed 30.05.2023).

[62] Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. M.: YASK. 2002. 496 p.

[63] Chafe W. L. Language and Consciousness // Language. Vol. 50. №. 1. 1974. Pp. 111–133; Chafe W. Givenness, contrastiveness, definiteness, subjects, topics and point of view // Subject and topic / ed. by Li, C. N. New York: Academic Press, 1976. Pp. 25-55; Chafe W. Cognitive constraints on information flow // Coherence and grounding in discourse / Tomlin, R. (ed.) Amsterdam: Benjamins, 1987. Pp. 21–52.

[64] Kibrik A.A. Analiz diskursa v kognitivnoy perspective [Analysis of Discourse in Cognitive Perspective]. avtoreferat dis. ... doktora filologicheskikh nauk [autoreferat of diss. doctor of philology. sciences. Moscow: Institute of Linguistics of the Russian Academy of Sciences. 2003. 90 p.

[65] Prince E. Toward a taxonomy of given-new information // Radical pragmatics / ed. Peter Cole. New York: Academic Press, 1981. Pp. 223-255.

[66] Gundel J.K., Hedberg N., Zacharski R. Cognitive Status and the Form of Referring Expressions in Discourse // Language 69. № 2. 1993. Pp. 274-307.

[67] Givón T. Definiteness and referentiality // Universals of human language / Greenberg J.H., Ferguson C.A., Moravcsik E.A. (eds.). Stanford: Stanford University Press, 1978. Vol. 4. Pp. 291-330; Givón T. Topic continuity in discourse: A quantitative crosslanguage study // Typological Studies in Language, vol. 3. Amsterdam: Benjamins, 1983.

[68] Hjelmslev L. O kategoriyakh lichnosti–nelichnosti i odushevlennosti–neodushevlennosti [On the categories of personality-non-personality and animacy-inanimate] // Printsipy tipologicheskogo analiza yazykov razlichnogo stroya [Principles of typological analysis of languages of various systems]. Moscow, 1972. P. 114 – 152.

[69] de Swart P., de Hoop H. Shifting animacy // Theoretical Linguistics. vol. 44, no. 1-2. 2018. pp. 1-23.

Trompenaars, T. A. Kaluge and R. Sarabi[70], as well as the works of S. Bayanati and I. Toivonen[71] and A.L. Malchukov[72].

Despite the large number of studies focusing on the DOM phenomenon in general, the phenomenon of asymmetric DOM in Hebrew at the moment is not particularly well-studied. Following J. Aissen, who mentioned Hebrew (with reference to T. Givon (1978)[73]) as an example of language where the only factor that licenses DOM is «definiteness»[74], other authors working within this framework refer to Hebrew as evidence, that systems, regulated by one of two parameters, animation or definiteness, do indeed exist. In our opinion, to use this argument in theoretical studies we would require, on the one hand, a clarification of the term «definiteness» in relation to the language data obserbed in Modern Hebrew, and, on the other hand, verification that this principle matches the patterns observed in the speech samples of current native speakers.

However, studies on the syntax of Modern Hebrew, which could clarify these issues, are carried out mainly within the framework of a formal approach to syntax, focusing on the theory of Abstract Case, formed within the Generative Grammar, proposed by N. Chomsky[75]. Within the framework of this approach, researchers from the general principle of Generative Grammar, stating the prevalence of syntactic structures over non-syntactic factors, logically deduce the existence of a theoretical construct, an Abstract Case, which in different languages is expressed by different linguistic means: morphological case affixes or specific

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[70] Trompenaars Th., Kaluge T.A., Sarabi R., de Swart P. Cognitive animacy and its relation to linguistic animacy: evidence from Japanese and Persian // Language Sciences. 2021. Vol. 86. [Electronic source] URL: https://pure.mpg.de/rest/items/item_3347556_1/component/file_3347557/content (accessed: 10.07.2023).

[71] Bayanati S., Toivonen I. Humans, Animals, Things and Animacy // Open Linguistics. Vol. 5 (1). 2019. Pp. 156-170.

[72] Malchukov A. Animacy šifts and resolution of semantic conflicts: A typological commentary on Shifting animacy by de Swart & de Hoop // Theoretical Linguistics. Vol. 44. № 1-2. 2018. Pp. 47-55.

[73] Givón T. Definiteness and referentiality. Pp. 291-330.

[74] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483.

[75] Chomsky N. Lectures on Government and Binding. Dordrecht: Foris, 1981. 371 p.; Chomsky N. The Minimalist Program. Cambridge, MA: MIT Press, 1995. 420 p.

words. In regards to the Modern Hebrew studies, this approach is prevailing and was used by many researchers, such as E. Ritter[76], Sh. Wintner[77], G. Danon[78], T. Siloni[79], O. Preminger[80] and others. In particular, the author of the only thesis that touches on the DOM phenomenon in Modern Hebrew, G. Danon, explains the distribution of the accusative marker in Modern Hebrew by syntactic restrictions related to structural differences between definite and indefinite objects, and suggests that the accusative marker «assigns structural Case independently of the verb»[81]. Such an approach, based on the fundamental autonomy of syntax, does not allow to consider the discourse-pragmatic characteristics of those linguistic expressions that encode an object (referential status, animacy, topicality etc.), or the characteristics of a predicate (temporal and aspectual features, polarity, inclination), i.e. those parameters that, according to different approaches to DOM, regulate the variability of object marking[82].

Studies of DOM factors in Hebrew within the functionalist approach framework, to our best knowledge, were carried out only for the Biblical Hebrew. The most fundamental work in this area was the thesis of P.Bekins (2012)[83], which convincingly proved the importance of discourse-pragmatic motivations (called by the author «information status») in coding a direct object in Biblical Hebrew.

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[76] Ritter E. Two functional categories in noun phrases: Evidence from Modern Hebrew // Syntax and semantics, vol. 25: Perspectives on phrase structure: Heads and Licensing / Rothstein, S. (ed.). San Diego: Academic Press, 1991. P. 37-62.

[77] Wintner Sh. Definiteness in the Hebrew Noun Phrase // Journal of Linguistics. 2000. Vol. 36(2). Pp. 319-363.

[78] Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew. PhD thesis, Tel-Aviv University. 2002. 243 p. [Electronic source] URL: http://faculty.biu.ac.il/~danong1/papers/Danon2002-dissertation.pdf (accessed: 29.09.2009).

[79] Siloni T. Noun phrases and nominalizations: the syntax of DPs. Dordrecht: Kluwer Academic Publishers, 1997. 220 p.

[80] Preminger O. Functional structure in the noun phrase: revisiting Hebrew nominals // Glossa: a journal of general linguistics, 5(1): 68. 2020. Pp. 1–8.

[81] Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew.

[82] Подробнее о факторах-лицензорах ДОМ в различных подходах см. Malchukov A., de Swart P. Differential case marking and actancy variation. Pp. 345-347.

[83] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. 287 p.

In order to determine the current state of research into morpho-syntactic coding of direct and indirect objects, the author also involved various studies on the syntax of Semitic languages, as well as scientific studies, grammatical descriptions and reference books of Modern Hebrew. The most significant publications in the relevant field of Semitic studies include those by G. Khan[84] and A.D. Rubin[85], in regards to Modern Hebrew — in addition to the already mentioned studies by E. Ritter, Sh. Wintner, G. Danon, T. Siloni and O. Preminger — fundamental work on the grammar of Modern Hebrew by L. Glinert[86], the work of R. Halevy research on Hebrew syntax, including the study of the symmetric type of DOM[87], the study by U. Ornan on nominal morphology[88], the research by U. Schlonsky[89]. We will also note as particularly important the recent experimental study by A. Hacohen, O. Kagan and D. Plaut (2021)[90], which was the first study, not including the research done by the author of this dissertation, stating that object marking of some specific types of referential expressions (A. Hacohen, O. Kagan and D. Plaut focus on partitive constructions) in Modern Hebrew is optional and is not regulated solely by the parameter of definiteness.

Thus, this study is based on a wide range of Russian and foreign publications on the problems of functionalist syntax and strategies for coding accusative constructions, referentiality, animacy and other discourse-pragmatic

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[84] Khan G. Object markers and agreement pronouns in Semitic languages // Bulletin of the School of Oriental and African Studies. Vol. 47(3). 1984. Pp. 468-500.

[85] Rubin A.D. Studies in Semitic grammaticalization. Winona Lake: Eisenbrauns, 2005. 177 p.

[86] Glinert L. The Grammar of Modern Hebrew. Cambridge: Cambridge University Press, 1989. 608 p.

[87] Halevy R. Transitive verbs with non-accusative alternation in Hebrew: Cross-language comparison with English, German and Spanish // On Interpreting Construction Schemas / N.Delbecque, B.Cornillie (eds.). Berlin, New York: De Gruyter Mouton, 2008. Pp. 61-102; Halevy R. Modern Hebrew syntax // Encyclopedia of Hebrew Language and Linguistics / G. Khan (ed.). Vol. 3. Brill: Leiden, 2013. Pp. 707-722.

[88] אורנן יו. ביטויי עצם בספרות העברית החדשה. עבודת דוקטורט, האוניברסיטה העברית ירושלים 1964 Орнан У. Именные группы в современной литературе на иврите. Докторская диссертация. Еврейский университет в Иерусалиме, 1964.

[89] Shlonsky U. Quantifiers as functional heads: A study of Quantifier Float in Hebrew // Lingua. № 84. 1991. Pp. 159–180; Shlonsky U. Clause Structure and Word Order in Hebrew and Arabic. Oxford: Oxford University Press. 1997. 304 p.

[90] Hacohen A., Kagan O., Plaut D. Differential Object Marking in Modern Hebrew: Definiteness and partitivity // Glossa: a journal of general linguistics. 2021. Vol. 6(1). Pp. 1-34.

factors that potentially regulate DOM in Modern Hebrew, as well as on existing research on the Modern Hebrew syntax and on empirical data obtained by the automated data extraction systems (corpora).

The source base for the study is the data of two corpora of the Modern Hebrew language made by the author specifically for this sudy, the Hebrew Objects General Corpus (HOG corpus), with a volume of about 52 000 words, and the Hebrew Objects Targeted Corpus (HOT corpus), with a volume of about 49 000 words, created on the basis of Modern Hebrew corpus Hebrew Web 2021 (heTenTen21)[91], hosted on the SketchEngine platform (https://www.sketchengine.eu/).

The purpose of this study is to identify the factors that regulate asymmetric object marking in the transitive clause in Modern Hebrew.

To achieve this goal, the main **research objectives** are as following:

1. Define the concept of asymmetric object marking,

2. Determine the basic principles of Differential Object Marking discussed in the linguistic literature, and identify factors that can motivate DOM of asymmetric and symmetric types,

3. Establish the use of the term «asymmetric object marking» for alternations in encoding the O-participant of the situation in the transitive clause in Modern Hebrew,

4. Itemize the ways of expressing the «definiteness» category in Modern Hebrew, including using different types of determiners, and to catalog the types of referential expressions that in Modern Hebrew can encode an O-participant in a transitive clause in regards to the «definiteness» parameter,

5. Recount the basic principles of asymmetric object marking in Modern Hebrew, formed in the linguistic literature,

6. Determine whether the presence of formal indicators of determination accompanying the referential expression encoding the O-participant in the

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[91] heTenTen21 corpus [Electronic source] URL: https://www.sketchengine.eu/hetenten-hebrew-corpus/ (accessed: 15.09.2022).

transitive clause is the only and absolute condition for overt accusative marking of the referential expressions of various types, and their absence is an absolute restriction for the same,

7. To confirm the correlation between the asymmetric type DOM in Modern Hebrew and other motivational factors considered in the DOM literature, in particular, with discourse-pragmatic motivations, such as animacy, referential status, accessibility of the referent in discourse, topicality, and form a hierarchy of all identified factors.

Since **the theoretical basis of the study** includes theoretical principles and approaches developed within the framework of functionalism, **the methodological basis of the study** was chosen in accordance with the main principles of functionalism, including *empiricism, the use of quantitative methods* and *multidisciplinarity*[92]. Thus, the study uses **the research methods** of comparative and explanatory description, contextual analysis and textual quantitative analysis, and within the framework of the corpus-based method, statistical methods of data analysis are widely used. The use of corpus tools and automated methods of data analysis makes it possible to more effectively identify the relevant factors and to assess the level of their influence on the encoding choice with greater statistical certainty[93]. The advantage of such a corpus-based study is that, like any corpus-based study, it «relies on observed speech patterns, and not on invented examples, on samples of texts connected by certain semantic relationships, and not on isolated sentences»[94].

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[92] Kibrik A.A., Plungyan V.A. Funktsionalizm [Functionalism] // Sovremennaya amerikanskaya lingvistika. Fundamental'nyye napravleniya [Modern American Linguistics. Fundamental directions]. 4th ed. / A.A.Kibrik, I.M.Kobozeva, I.A.Sekerina (ed.). Moscow: Knizhnyi dom «LIBROKOM», 2010. Pp. 276-339; Dik S.C. The Theory of Functional Grammar. Part 1. Berlin: Mouton de Gruyter, 1989. 433 p.

[93] Lyutikova E.A., Zimmerling A.V., Ronko R.V. Differentsirovannoye markirovaniye argumentov: morfologiya, semantika, sintaksis [Differential Marking of Arguments: Morphology, Semantics, Syntax] // Voprosy yazykoznaniya [Questions of Linguistics]. 2016, No. 6. Pp. 120-121.

[94] Voeikova M.D. Vvedeniye. Peterburgskaya shkola funktsional'noy grammatiki: istoriya, sovremennoye sostoyaniye i napravleniya razvitiya [Introduction. St. Petersburg School of Functional Grammar: History, Current State and Directions of Development] // Acta Linguistica

Scientific novelty of the research. This study is the first attempt in the linguistic literature to consider the phenomenon of asymmetric object marking in Modern Hebrew in terms of functionalism and within the framework of a cognitive-discourse approach, using the tools and techniques of corpus analysis. As a result of this approach, it became possible to form an objective judgment about the factors that regulate asymmetric object marking in Modern Hebrew on the basis of the usage, rather than grammatical descriptions or linguistic introspection of individual researchers. The specified functionalist approach to asymmetric object marking in Modern Hebrew, as well as corpus-based research methods that have not been previously used for this purpose on the specified data, substantiate the scientific novelty of the study.

Theoretical significance of the study. The theoretical significance of the study is substantiated by the use of an integrated approach to the researched, taking into account discourse-pragmatic motivations, the results of which, on the one hand, can clarify the prevailing ideas about the DOM phenomenon in Modern Hebrew, and, on the other hand, contribute to the development of a unified comprehensive theory explaining the alternations of argument coding, on which both Russian and foreign researchers are currently actively working.

The practical significance of the study. The results of this research can be used to provide more exact data for grammars and reference literature in the sections concerning the structure and distribution of accusative constructions in Modern Hebrew, as well as for various resources for teaching Modern Hebrew, and can also be implemented in programming Hebrew-based automated information systems (such as machine translation systems, automatic search engines, morphological and syntactic analizers, distance learning systems, etc.) to improve the accuracy of the information provided.

Provisions to be defended:

Petropolitana. Trudy instituta lingvisticheskikh issledovaniy RAN [Proceedings of the Institute of Linguistic Research of the Russian Academy of Sciences] / Ch. Ed. by N.N. Kazansky.T. XI. PART 1. / Ed. by M. D. Voeikov, E. G. Sosnovtsev. St.Petersburg: Nauka, 2015. Pp. 3-17.

1.   Viewed from a broad typological perspective the encoding of the direct object, i.e. the O-participant of the situation in the transitive clause, in Modern Hebrew, is characterized by the ACC *vs* Ø marker alternation (overt accusative *vs* null marker) and correlates with the phenomenon, which in the linguistic literature on the argument marking alternations is called the asymmetric Differential Object Marking (DOM).

2. The main factor of the variability for the vast majority of referential expressions, coding the direct object in Modern Hebrew, is the «definiteness» of the expression, marked by the presence / absence of such indicators of determination as a definite article, a possessive suffix, a proper name - in the head and / or compliment noun depending on the structure of the referential expression. Definite status, as a rule, requires overt accusative object marking, while an indefinite one prohibits the use of an accusative marker. Some types of referential expressions, both «definite» and «indefinite» based on aforementioned criteria (in particular, interrogative pronouns, partitive constructions, demonstrative pronouns, relative pronouns heading the descriptions, etc.), allow optional object marking.

3. Discourse-pragmatic factors, varying in significance depending on the type of referential expression, also play a role in regulating asymmetric DOM of referential expressions that encode an O-participant in a transitive clause in Modern Hebrew, including those that allow optional DOM. Significant discourse-pragmatic motivations relative in Modern Hebrew are: referential status of the expression, animacy of the referent, accessibility of the referent in discourse, topicality.

Structure of the study. The structure of this research is chosen in accordance with the purpose and objectives of the study and consists of an introduction, three chapters, a conclusion and a list of sources and references.

Chapter 1 introduces the main theoretical and methodological principles developed for the study of asymmetric object marking in modern linguistics. It discusses semantic and pragmatic roles of subject and object, genesis of the

«Differential Object Marking» concept in the context of various syntactic theories, and existing approaches to the study of DOM. Particular attention is paid to the typology of DOM motivations.

Chapter 2 provides a brief overview of the basic principles of DOM in Modern Hebrew provided by previous research and grammatical descriptions, describes two research corpora that served as the sources of this study, and conducts a contextual and textual-quantitative analysis of asymmetric object marking for four categories of referential expressions (definite noun phrases, indefinite noun phrases, proper names and pronouns) in terms of the influence of their «definiteness» status.

Chapter 3 will outline the discourse-pragmatic factors that are relevant for asymmetric object marking in Modern Hebrew. With the help of tools and techniques of the corpus-based method, referential expressions that have demonstrated optional marking or deviations from the generally accepted principles of asymmetric object marking are checked for the influence of such discourse-pragmatic motivations as referential status, animacy and accessibility of the refernt in discourse (including the degree of its identifiability in discourse) and topicality.

Approbation of the results. The results of this study were published in leading Russian scientific journals and presented at several Russian and international conferences.

Publishing:

1.   Alekseeva M.E. On the problem of determiners in the context of modern syntactic theories // Vestnik of Saint Petersburg University. Asian and African Studies. 2009. No.1. P. 107-113.

2.   Alekseeva M.E. Basic principles of object marking in Modern Hebrew: definiteness and differential marking // Vestnik of Saint Petersburg University. Asian and African Studies. 2010. No. 3. P. 107-113.

3.   Alekseeva M.E. Referential expression type and definiteness as factors of asymmetric object marking in Modern Hebrew // Litera. 2023. No. 5. Pp. 27-36.

4.   Alekseeva M.E. Animation and referential status as factors of asymmetric object marking in Modern Hebrew (based on interrogative and relative pronouns) // Litera. 2023. No. 6. Pp. 210-220.

Presentations at conferences:

1.   Alekseeva M.E. Animacy as a factor of case marking in possessive sentences of the Modern Hebrew // XXVII International Scientific Conference on Source Studies and Historiography of Asian and African Countries «Local Heritage and Global Perspective. «Traditionalism» and «Revolutionism» in the East», St. Petersburg, April 24–26, 2013.

2.   Alekseeva M.E. Object marking of borrowed vocabulary in the Modern Hebrew // XXVIII International Scientific Conference on Source Studies and Historiography of Asian and African Countries «Asia and Africa in a Changing World», St. Petersburg, April 22–24, 2015.

3.   Alekseeva M.E. Features of accusative constructions in colloquial Modern Hebrew // XXIX International Congress on Source Studies and Historiography of Asian and African Countries «Asia and Africa: Heritage and Modernity», St. Petersburg, June 21–23, 2017.

4.   Alekseeva M.E. Methods of digital humanities in Hebrew studies: problems and prospects // XLVII International Philological Conference, St. Petersburg, March 19–28, 2018.

5.   Alekseeva M.E. Verbal government variations in Modern Hebrew (based on verbs of motion) // XXX International Congress on Source Studies and Historiography of Asian and African Countries , St. Petersburg, June 09–21, 2019.

6.   Alekseeva M.E. Experimental verification of the object marking alternations in Hebrew-language corpora // XXXI International Congress on Source Studies and Historiography of Asian and African Countries «Russia and the

East. To the 100th Anniversary of Political and Cultural Relations of Modern Times», St. Petersburg, June 23–25, 2021.

7. Alekseeva M.E. Corpus linguistics' methods in teaching Modern Hebrew language: theoretical and practical aspects // «Linguistics and Country Studies: Methods of Analysis, Teaching Technologies», Moscow, June 21–22, 2022.

8. Alekseeva M.E. Variability of asymmetric object marking in Hebrew: a comparative aspect // XXXII International Congress on Source Studies and Historiography of Asian and African Countries «Russia and the East. On the occasion of the 300th anniversary of St. Petersburg State University», St. Petersburg, April 26–28, 2023.

CHAPTER 1. MAIN THEORETICAL PRINCIPLES OF DIFFERENTIAL OBJECT MARKING RESEARCH IN MODERN LINGUISTICS

An extensive research has been done in regards to DOM in diffferent world languages, including various studies of syntax, semantics, morphology, comparative linguistics and discourse analysis.

Based on the theoretical framework of functionalist linguistics and research on the data observed in languages with different structures within the framework of the functionalist approach, this chapter examines the main theoretical and methodological principles for studying asymmetric object marking, which have been formed in linguistic studies in recent decades. The concepts of «subject» and «object», the genesis of the DOM concept in the context of various syntactic theories, and approaches to the study of DOM in modern linguistics, as well as the typology of DOM motivations, each of them provides, are discussed.

1.1. Subject and object in the context of modern functionalist theories

The terms «subject» and «object» used in DAM (Differential Argument Marking) studies are borrowed from traditional grammar. It is difficult to give a precise definition of these concepts. Partly to avoid having to formulate definitions for concepts that have a large theoretical background and numerous (sometimes conflicting) connotations, functional-typological studies have adopted other designations. The two arguments of a typical transitive verb are labeled A (Agent) and O (Object) (or P (Patient)), while an intransitive verb implies only one participant in the situation, labeled S (Subject)[95]. Within the functionalist approach, subject and object reflect grammatical relations, or grammatical roles, which are associated with certain morphosyntactic, semantic and pragmatic characteristics. However, most often subject and object are perceived as prototypical categories, which are defined by a number of characteristic features, rather than by a set of properties inherent to them.

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[95] Dixon R.M.W. Ergativity. Pp. 59-138.

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Similarity of some languages in the way they case mark the nuclear roles of S, A, O and their dissimilarity form others provide the basis for the currently widely accepted classification of languages. In (nominative-)accusative languages, A and S are combined and equally encoded by the nominative, while O is opposed to them and encoded by the accusative. (Absolute-)ergative languages combine O and S, which are encoded as absolute, and A is encoded with the ergative case. There is also a neutral system, in which S, A, and O are encoded the same way, or a contrastive (tripartite) system, in which S, A, and O are encoded differently. And active-stative languages present an example of split marking, where S is encoded in a similar way to A and O[96].

According to another approach proposed by A.E. Kibrik, the syntactic relations, that the above classification is based upon, are only a result of the three fundamental aspects of clause structure organization: semantic roles, pragmatic structure of the utterance and deictic characteristics[97]. Without setting the task of making a final judgment on the validity of one of these approaches, in this thesis we will consider both various ways of encoding the subject and object, including

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[96] This classification is not recognized by all researchers as justified. For a more detailed discussion of the described nuclear role coding strategies and the classification based on it, see, for example, Comrie B. Ergativity. Pp. 329-394; Comrie B. Language universals and linguistic typology … 264 p.; Dixon R.M.W. Ergativity. Pp. 59-138; Nichols J. Linguistic diversity in space and time. 358 p.; Lazard G. L'Actance. 265 p.; Lazard G. Le marquage différentiel de l'objet. Pp. 873–885; Primus B. Cases and Thematic Roles … 285 p.; Kibrik A.E. Ocherki po obshchim i prikladnym voprosam yazykoznaniya (universal'noye, tipovoye i spetsifichnoye v yazyke) [Essays on general and applied issues of linguistics (universal, typical and specific in the language)]. Moscow: Izdatel'stvovo. MGU, 1992. 336 p.; Kibrik A.E. Konstanty i peremennyye yazyka [Language constants and variables]. 719 p.; Testelets Y.G. Grammaticheskiye iyerarkhii i tipologiya predlozheniya [Grammatical hierarchies and typology of sentences]: dissertation ... Doctor of Philological Sciences in the form of scientific report: 10.02.20. Moscow, 2003. 78 p.; Arkadyev P.M. Teoriya padezhnogo markirovaniya v svete dannykh dvukhpadezhnykh sistem [Theory of case marking in the light of data from two-case systems]. Pp. 34-62; Arkadyev P.M. Funktsional'no-semanticheskaya tipologiya dvukhpadezhnykh sistem [Functional and semantic typology of two-case systems]. Pp. 101-120; Malchukov A., de Swart P. Differential case marking and actancy variation. P. 339–355; Lyutikova E.A. Differentsirovannoye markirovaniye argumentov v formal'nykh modelyakh padezha [Differential Marking of Arguments in Formal Case Models]. Pp. 11-40; Haspelmath M. Role-reference associations and the explanation of argument coding splits. Pp. 123-174.

[97] Kibrik A.E. Beyond subject and object: Toward a comprehensive relational typology // Linguistic Typology. Vol. 1(3). 1997. Pp. 279-346.

case marking, predicative agreement and word order, as well as various aspects of the semantic and pragmatic structure discussed in the modern functional-typological literature.

1.1.1. Semantic roles

In the functional approach to syntax, an important place is given to the concept of «semantic role»[98]. Semantic roles describe the relationship between a predicate and its arguments. In the scientific literature, there are three approaches to the classification of semantic roles: the field approach, the two-level approach and the one where the roles are classified according to each individual language[99]. The first two are widespread.

The field and two-level approaches are based on the universality of the described semantic roles. Some of the most common semantic roles found in the literature[100] include: Agent (carrying out an action or causing an action indicated by a predicate; controlling the situation), Patient (exposed to or physically affected

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[98] Introduced by C. Fillmore in Fillmore C.J. The case for case // Universals in linguistic theory / E. Bach, R. T. Harms (eds.). Vol. 1-88. New York: Holt, Rinehart & Winston, 1968. Pp. 1-25.

[99] Kukatova O.A. Tipologiya semanticheskikh roley aktantov predikatov v sovremennoy lingvisticheskoy nauke [Typology of semantic roles of arguments of predicates in modern linguistic science] // Vestnik Chelyabinskogo gosudarstvennogo universiteta [Vestnik of Chelyabinsk State University]. 2021. No.1 (447). Pp. 91-94.

[100] For an analysis of the criteria for fragmentation of semantic roles, see Krylov S.A. Semanticheskaya rol' kak element metayazykov obshchey i spetsial'noy tipologii [Semantic role as an element of metalanguages of general and special typology] // 40 let Sankt-Peterburgskoy tipologicheskoy shkole [40 years of the St. Petersburg Typological School] / Khrakovsky V.S., Malchukov A.L, Dmitrenko S.Yu. (ed.). M., 2004. Pp. 49-53. For further information see Foley W. A., Van Valin R. D. Functional Syntax and Universal Grammar. 432 p.; Dowty D. Thematic proto-roles and argument selection. Pp. 547-619; Apresyan Yu.D. Izbrannyye trudy [Selected works]. T. I. Lexical semantics. 2nd ed. Moscow, 1995. 472 p.; Paducheva E. V. Semanticheskiye roli i problema sokhraneniya invarianta pri leksicheskoy derivatsii [Semantic roles and the problem of preserving the invariant in lexical derivation] // // Nauchno-tekhnicheskaya informatsiya. Ser. 2. Informatsionnyye protsessy i sistemy [Scientific and technical information. Ser. 2. Information processes and systems]. 1997. No. 2. Pp. 23–28; Van Valin R., LaPolla R. J. Syntax: Structure, meaning, and function. 741 p.; Apresyan Yu.D. Tipy sootvetstviya semanticheskikh i sintaksicheskikh aktantov [Correspondence types of semantic and syntactic actants] // Problemy tipologii i obshchey lingvistiki. Mezhdunarodnaya konferentsiya, posvyashchennaya 100-letiyu so dnya rozhdeniya professora A. A. Kholodovicha [Problems of typology and general linguistics. International conference dedicated to the 100th anniversary of the birth of Professor A. A. Kholodovich]. Materials. St.Petersburg. 2006. Pp. 15-27, etc.

by the Agent), Experiencer (thinking and feeling experiencer of the event), Benefactive (benefiting from the action or event indicated by the predicate), Instrument (the means by which the action or event indicated by the predicate is carried out), Place (Locative) (designation of the place where the action or event is performed), etc. All of these roles within the framework of the field approach are considered the nuclear part of the semantic field, as opposed to peripheral roles.

At the same time, the grammatical functions of the subject and the object are not semantically limited, i.e. they are not associated with any specific semantic role[101]. For example, in English, a wide range of semantic roles can fill in the syntactic positions of subject and object[102].

(1)   a. Fred broke the window.   S: Agent   O: Patient
       b. The bomb destroyed the car.   S: Instrument   O: Patient
       c. Mary received a parking ticket.   S: Recipient   O: Theme
       d. The farm animals sensed the earthquake. S: Experiencer   O: Stimulus
       e. The barking woke the neighbors.   S: Stimulus   O: Experiencer

Hierarchies are commonly used to describe the relationship between semantic roles and grammatical functions. Thematic hierarchy (2) was proposed by J. Bresnan and J. Kanerva in 1989[103], and the hierarchy of grammatical functions (3) - in 1977 by E. Keenan and B. Comrie[104].

(2) Thematic hierarchy

Agent > Benefactive > Recipient/Experiencer > Instrument > Patient > Locative

(3) Hierarchy of grammatical functions

Subject > Object > Oblique > Adjunct

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[101] Dalrymple M. Lexical functional grammar (Syntax and Semantics. Vol 34.). New York: Academic Press. 2001. 461 p.

[102] Примеры из Van Valin R. An introduction to syntax. Cambridge: Cambridge University Press, 2001. Pp. 139-140 заимствованы или адаптированы автором.

[103] Bresnan J., Kanerva J. Locative inversion in Chichewa. Pp. 1-50.

[104] Keenan E. L., Comrie B. Noun phrase accessibility and universal grammar. Pp. 63-99.

The combination of these hierarchies predicts that the argument occupying the highest place in the thematic hierarchy will usually be implemented in the highest available grammatical function within a given sentence.

Proponents of the two-level approach seek to generalize the above roles, presenting them as a two-level system, first proposed by W. Foley and R. Van Valin and including the basic and derivative levels[105]. At the basic level, there are generalized roles of the Actor and the Underperformer, which in further studies were called proto-roles[106], or macro-roles[107]. D. Dowty, in particular, suggested that arguments can be classified on the basis of the characteristics of proto-Agents and Proto-Patients (Table 1). Of the two actors in the sentence, the one with a higher rating in terms of «agentivity», according to D. Dowty [108], is likely to be encoded as a subject, whereas the argument with the highest degree of «patientity» is more likely to be encoded as an object.

Table 1. Characteristics of proto-roles, according to D. Dowty

Proto-Agents	Proto-Pacific
Actively (volitively) participates in an event or state	Undergoes a state change
Conscious (and/or capable of perceiving)	It is an incremental theme
Triggers an event or causes another participant's state to change	Subjected to causation
Moves	Immobile relative to the other participant
(Exists regardless of event)	(Does not exist independently of the event or at all)

[105] Foley W. A., Van Valin R. D. Functional Syntax and Universal Grammar. 432 p.
[106] Dowty D. Thematic proto-roles and argument selection. Pp. 547-619.
[107] Van Valin R., LaPolla R. J. Syntax: Structure, meaning, and function. 741 p.
[108] Dowty D. Thematic proto-roles and argument selection. Pp. 547-619.

R. Van Valin and R. LaPolla[109] proposed to consider the semantic relationship between the predicate and its arguments in accordance with the following principles. First, specific verbs are associated with specific semantic roles characteristic of them (for example, *to kill*: killing and killed). Secondly, the semantic roles listed above generalize these verb-specific roles (for example, *kill*: Agents and Patient). And thirdly, it generalizes these semantic roles of the macro-roles of Actor and Undergoing (for example, *kill*: Actor and Undergoer). Since definite semantic roles, such as the Instrument, have the features of both the Actor and the Underperformer, R. Van Valin subsequently proposed two separate hierarchies of semantic roles for each macrorole separately[110].

In a typical sentence with an actional predicate, the macrorole of the Actor is realized as the subject, while the role of the Undergoing is realized by the object. As in D. Dowty's protorole approach, the concept of macroroles assumes that the prototypical Actor is the Agent, while the prototypical Undergoing is the Patient.

1.1.2. Pragmatic roles

Despite the importance of semantic roles in functionalist research of case marking alternations, even authors of widely accepted classical studies emphasize the need to study the «combination of semantic roles of arguments and information structure»[111]. The basic concepts of sentence information structure, i.e., the structure of pragmatically relevant elements in discourse, are «topic» and «focus».

Although the grammatical category of subject does not have a one-to-one correspondence with one specific semantic role, theoretical and typological studies prove that there is an obvious correlation between subject and pragmatic role of topic[112]. It is noted that the grammatical category of object also has discourse-

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[109] Van Valin R., LaPolla R. J. Syntax: Structure, meaning, and function. Pp. 141-160.
[110] Van Valin R. An introduction to syntax. P. 32.
[111] Kozinsky I.Sh. Nekotoryye grammaticheskiye universalii v podsistemakh vyrazheniya sub"yektno-ob"yektnykh otnosheniy [Some grammatical universals in subsystems of expression of subject-object relations]. Diss.... Cand. Philol. Sciences. Moscow, 1979. P. 190.
[112] For more information, see, for example, Li C.N., Thompson S. Subject and topic: A new

pragmatic associations. Many studies, in particular, use the notion of high or low «topicality» while discussing an argument's features. By «topicality» we meant «a stable connection between the syntactic position and the communicative status of topic, fixed at grammatical level (by means of word order and / or other markers)»[113]. For example, W. Croft noted that although «high topicality» is typical for subjects, objects are also characterized by «medium topicality»[114]. And T. Givón argued that the direct object grammaticalizes the pragmatic function of a secondary topic.[115]

The relationship between topicality and grammatical role is most obvious in a tripartite construction, as shown in the examples below[116]:

(4a)   The vandals stripped [the branches]OBJ off the tree.

(4b)   The vandals stripped [the tree]OBJ of its branches.

In these examples, the peripheral participant in example (4a), *the tree*, is realized as direct object in example (4b). Using *the tree* as a Patient shifts the focus of attention to the tree as a whole, as an object of influence, but in the flow of discourse, the choice of one of the options is often also associated with the relative cognitive status of the two 'non-subjects' participants in the situation.

1.2.   Basic Principles of Differential Object Marking

Differential Object Marking (DOM) is a one of the possible realizations of the broader phenomenon of Differential Argument Marking (DAM).[117] The term «Differential Argument Marking» refers to a wide range of phenomena in

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typology of language // Subject and topic / ed. C.N. Li. New York: Academic Press. 1976. Pp. 457-489; Givón T. Syntax: an introduction. Vol. 1. Amsterdam: John Benjamins. 2001. 500 p.

[113] Zimmerling A.V. Topikal'nost' i nekanonicheskiye podlezhashchiye v russkom yazyke [Topicality and non-canonical subjects in Russian language] // Russkaya grammatika: aktivnyye protsessy v yazyke i rechi. Sbornik materialov mezhdunarodnogo nauchnogo simpoziuma [Russian grammar: active processes in language and speech. Collection of materials of the international scientific symposium] / Comp. E.K. Melnikova, ed. Zh.K. Gaponov, ed. by L.V. Ukhov. Yaroslavl: RIO YAGPU. 2019. Pp. 344-354.

[114] Croft W. Syntactic categories and grammatical relations: The cognitive organization of information. Chicago: University of Chicago Press, 1991. P. 155.

[115] Givón T. Syntax: an introduction. P. 196.

[116] Examples and their interpretation are given in Blake B. J. Case. 2nd ed. Cambridge: Cambridge University Press, 2001. P. 134.

[117] In some studies also «differential marking of arguments».

languages of different structures, associated with the variability of the morphosyntactic coding of an argument «depending on the presence or meaning of a special semantic or grammatical factor — a licensor of differential marking that is not reducible to voice or argument-derivative transformations».[118]

The first phenomenon that laid the foundation for the study of DAM was Differential Object Marking. The study of DOM began when the numerous examples of variable morphosyntactic coding of a direct object in various languages of the world was noted and later described in detail both in typological studies based on specific languages and in theoretical literature. The term «Differential Object Marking» (DOM, also «Differential Direct Object Marking» or «variable coding of direct object» in Russian linguistic literature[119]) was introduced by G. Bossong in 1985[120], and even at that point the object marking alternations were recorded in more than 300 languages of the world. According to modern typological researchers, this phenomenon occurs «in almost all accusative languages»[121]. One of the few textbook examples of 'un-differential' object marking in a language with accusative marking is Yauyos Quechua (a group of Quechuan languages, South America).[122] The main goal of numerous studies based on data from various languages that have appeared over the past 38 years has been to identify which factors or their combination license DOM. Among these factors, there are both the object characteristics, for example, definiteness (sometimes combined with the parameter «referential status»), animacy, topicality, and the characteristics of a predicate or clause: the values of temporal and actional

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[118] Lyutikova E.A., Zimmerling A.V., Ronko R.V. Differentsirovannoye markirovaniye argumentov: morfologiya, semantika, sintaksis [Differential Marking of Arguments: Morphology, Semantics, Syntax]. P. 114.

[119] For example, in Serobolskaya N.V. Odushevlennost' i markirovaniye pryamogo dopolneniya v besermyanskom korpuse [Animacy and Marking of Direct Complement in the Besermyan Corpus] // Yezhegodnik finno-ugorskikh issledovaniy [Yearbook of Finno-Ugric Studies]. 2019. No.2. Pp. 205-215.

[120] Bossong G. Empirische Universalienforschung. 185 p.

[121] Jäger G. Evolutionary game theory and typology: A case study. Language, Vol. 83. No. 1, 2007. P. 102.

[122] Shimelman A. A grammar of Yauyos Quechua. Berlin: Language Science Press. 2017. Pp. 89-90.

categories, polarity, mood[123]. Many typological studies, as well as descriptions of individual languages, focus on ways of DOM realization (symmetric / asymmetric marking, head / dependent marking) and their correlation with licensing factors.

Rethinking of the theoretical aspects of DOM led researchers to the idea that similar strategies of differential marking may work for other arguments. In particular, Differential Subject Marking (DSM) and Differential Possessor Marking (DPM) have recently been proposed.

The presence of a variable morphosyntactic coding of the subject in ergative languages is not a new idea (in particular, discussed in well established studies of M. Silverstein, B. Comrie and R. Dixon[124]), however, as a distinct phenomenon, Differential Subject Marking has begun to be studied only recently.[125] Among the motivations for DSM «both formal characteristics of noun phrases in subject role (locutor / non-locutor, pronoun / noun), as well as semantic (volition, control) and grammatical (TAM-categories) characteristics of the predicate» have been discussed[126].

In the studies published in 2009-2019, the concepts of «Differential locative marking»[127] and a broader «Differential place marking»[128] appeared. The latter, according to M. Haspelmath, as well as DOM, has a predictable regularity of use and is justified by the efficiency of coding[129]. Typological research on DAM, do

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[123] Lyutikova E.A., Zimmerling A.V., Ronko R.V. Differentsirovannoye markirovaniye argumentov: morfologiya, semantika, sintaksis [Differential Marking of Arguments: Morphology, Semantics, Syntax]. P. 114; Malchukov A., de Swart P. Differential case marking and actancy variation. Pp. 345-347.

[124] See, for example, Silverstein M. Hierarchy of Features and Ergativity. Pp. 112-171; Comrie B. Ergativity. Pp. 329-394; Dixon R.M.W. Ergativity. Pp. 59-138; Witzlack-Makarevich A., Seržant I. A. Differential argument marking: Patterns of variation: An introduction // The Diachronic Typology of Differential Argument Marking [Studies in Diversity Linguistics] / I. A. Seržant, A. Witzlack-Makarevich (eds.). Berlin: Language Science Press, 2018. Pp. 1-40.

[125] See, for example, Differential Subject Marking. Studies in Natural Language and Linguistic Theory / de Hoop H., de Swart P. (eds). Springer, Dordrecht. 2009. 312 p.

[126] Lyutikova E.A., Zimmerling A.V., Ronko R.V. Differentsirovannoye markirovaniye argumentov: morfologiya, semantika, sintaksis [Differential Marking of Arguments: Morphology, Semantics, Syntax]. P. 115.

[127] Malchukov A., de Swart P. Differential case marking and actancy variation. P. 345.

[128] Haspelmath M. Differential place marking and differential object marking. Pp. 313-334.

[129] Ibid.

not yet include the Differential place marking in the generally accepted classification, but it is quite possible that it will be included after a more thorough consideration of the issue.

The unification of all these phenomena (at least, DSM, DOM and DPM at the moment) into one phenomenon under the general name of «Differential Argument Marking» is thus quite logical. It is due, firstly, to the morphosyntactic coding of the noun phrases (NPs) that are predominantly uniform in nature, acting as a subject, object or possessor[130], and secondly, the presence of regularly occurring deviations from the prescribed method of encoding under the influence of a definite number of licensing factors. These factors lie in several planes at once: semantic (semantic roles and related characteristics, such as volatility, control, etc.), pragmatic (information structure, referentiality), deictic (locutor / non-locutor, participant / non-participant of the speech act). The fact that the same factors in languages of different structure have a systematic impact and cause the same deviations (the argument «either receives a particular case marking, or «loses» the case marker, or ceases to control predicative or possessive agreement»[131]) suggests the existence of uniform mechanisms governing DAM.

At the moment, to explain the phenomena of DAM in different languages, most researchers appeal to the principles of *economy* (language tends to use the minimum amount of language data sufficient for communication) and

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[130] Compare, for example, the phenomenon of object and subject genetive in contexts with negation in Russian language, where the genetive encodes not only the direct object ('On vidit knig-I' / 'On ne vidit knig'), but also the subject ('Somneniya voznik-li' / 'Somneniy ne voznik-lo'). For more information, see: Paducheva E.V. Genitiv dopolneniya v otritsatel'nom predlozhenii [The genitive of the complement in the negative sentence] // Voprosy yazykoznaniya [Questions of Linguistics]. 2006. No. 6. Pp. 21–43; Paducheva E.V. Roditel'nyy sub"yekta v otritsatel'nom predlozhenii: sintaksis ili semantika? [The genitive of the subject in a negative sentence: syntax or semantics?] // Voprosy yazykoznaniya [Questions of Linguistics]. 1997. No. 2. Pp. 101—116.

[131] Ronko R.V. Nominativnyy ob"yekt v drevnerusskom yazyke i severnorusskikh dialektakh v areal'noy i tipologicheskoy perspektive [The Nominative Object in the Old Russian Language and Northern Russian Dialects in Areal and Typological Perspective]: Dissertation ... Candidate of Philological Sciences: 10.02.20. Moscow, 2018. P. 12; Lyutikova E.A., Zimmerling A.V., Ronko R.V. Differentsirovannoye markirovaniye argumentov: morfologiya, semantika, sintaksis [Differential Marking of Arguments: Morphology, Semantics, Syntax]. 6. P. 115.

disambiguation (in a situation with several participants, the encoding of each should be clear enough to distinguish them)[132], although there are arguments against[133].

As for the DOM phenomenon, since the appearance of the term in 1985, it has been studied from different points of view, within the framework of different approaches. The research was carried out both within the framework of formal theories (the most influential being N. Chomsky's generative grammar[134]) and with functional-typological literature: within the framework of the theory of LFG (English Lexical Functional Grammar)[135] and within the framework of the optimality theory[136]. Moreover, depending on the approach or theory within which the study is performed, this phenomenon can be referred to as «Differential Object Marking», as «split accusative marking / coding», as «split coding of the Patient role», etc.

Recently, a multifactorial approach to DOM has been gaining popularity. The purpose of the study, according to this approach, is to rank the factors that regulate the choice of direct object in a particular language or on a specific language data. This study is carried out within the framework of functionalism and

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[132] Comrie B. Ergativity. Pp. 329-394; Comrie B. Language universals and linguistic typology … 264 p.; Dixon R.M.W. Ergativity. Pp. 59-138; Nichols J. Linguistic diversity in space and time. 358 p.; Lazard G. L'Actance. 265 p.; Lazard G. Le marquage différentiel de l'objet. Pp. 873–885; Primus B. Cases and Thematic Roles … 285 p.; Kibrik A.E. Ocherki po obshchim i prikladnym voprosam yazykoznaniya (universal'noye, tipovoye i spetsifichnoye v yazyke) [Essays on general and applied issues of linguistics (universal, typical and specific in the language)]. 336 p.; Kibrik A.E. Iyerarkhii, roli, nuli, markirovannost' i "anomal'naya" upakovka grammaticheskoy semantiki [Hierarchies, roles, zeros, markings and «anomalous» packaging of grammatical semantics] // Voprosy yazykoznaniya [Questions of Linguistics]. 1997. No.4. Pp. 27-57.

[133] See, for example, the studies by Testelets Y.G. Grammaticheskiye iyerarkhii i tipologiya predlozheniya [Grammatical hierarchies and typology of sentences]: dissertation ... Doctor of Philological Sciences in the form of scientific report: 10.02.20. Moscow, 2003. 78 p..; Arkadyev P.M. Funktsional'no-semanticheskaya tipologiya dvukhpadezhnykh sistem [Functional and semantic typology of two-case systems]. Pp. 101-120; Arkadyev P.M. Teoriya padezhnogo markirovaniya v svete dannykh dvukhpadezhnykh sistem [Theory of case marking in the light of data from two-case systems]. Pp. 34-62.

[134] Chomsky N. Lectures on Government and Binding. Dordrecht: Foris, 1981. 371 p.; Chomsky N. The Minimalist Program. Cambridge, MA: MIT Press, 1995. 420 p.

[135] Dalrymple M., Nikolaeva I. Objects and information structure. 247 p.

[136] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483.

applies the principles of a multifactorial approach to study the phenomenon of asymmetric DOM in the Modern Hebrew[137].

1.2.1. Optimality theory

As mentioned above, there are several approaches that explain the DAM alternations, in particular, alternations of object marking.

The largest number of research on object marking alternations is focused within the framework of the so-called «optimality theory», the key principles of which are presented by J. Aissen[138]. J. Aissen based her approach on the functional explanation of object marking alternations, proposed by B. Comrie, which stated that typically subjects are definite and animate, and objects are indefinite and inanimate, therefore, these characteristics will be enough to distinguish them, and in cases where this principle is violated, the object must be marked with a special indicator[139]. Continuing to follow this principle of «disambiguation», the optimality theory considers DOM from the standpoint *of language economy*, according to which the amount of language data used to encode a direct object in a language should be minimal, but sufficient for communication. When the speaker chooses more coding material, the theory states, such a choice must be justified by the additional meaning that the speaker needs to convey, including the goal to distinguish between the subject and the object of the statement.

In her study J. Aissen postulates the fundamental importance of two factors regulating DOM: definiteness and animacy. This approach does not contradict the previously put forward theories, since both of these factors correlate with

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[137] Konoshenko M.B. Differentsirovannoye markirovaniye ob"yekta v kalmytskom yazyke [Differential marking of the object in the Kalmyk language]. Pp. 42-75.; Serdobolskaya N.V., Toldova S.Yu. Nekotoryye osobennosti oformleniya pryamogo dopolneniya v mariyskom yazyke [Some features of the direct object coding in the Mari language]. P. 106-124; Serdobolskaya N.V., Toldova S.Yu. Differential Marking of Direct object in Finno-Ugric Languages // Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches. Moscow: Languages of Slavic cultures. 2012. S. 59-142; Ronko R.V. Nominativnyy ob"yekt v drevnerusskom yazyke i severnorusskikh dialektakh v areal'noy i tipologicheskoy perspektive [The Nominative Object in the Old Russian Language and Northern Russian Dialects in Areal and Typological Perspective]. 136 p.
[138] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483.
[139] Comrie B. Language universals and linguistic typology … 264 p.

individuation of object (the term used in the study by P. Hopper and S. Thompson (1980)[140] — for more details, see section 1.2.2).

Definiteness and animacy within the framework of the optimality theory are presented in the form of the following hierarchical scales with few variations[141]:

(5)   Definiteness scale:

Pronoun > Proper name > Definite NP > Indefinite specific NP > Non-specific NP

(6)   Animacy scale:

Human > Animate (Non-Human) > Inanimate

It is believed that the farther to the left a particular name is located in the hierarchy of definiteness or animacy, the more likely it is to receive accusative marking[142]. Below, in section 1.4, the concepts of «definite» and «animate» and their interpretation in various approaches to DOM are discussed in more detail.

Following the logic of J. Aissen's research, the three main variations of object coding are:

1.   Case marking (accusative) is optional, but only animate objects can be marked (for example, in Sinhalese);

2.   Obligatory marking of some objects (in particular, animate ones) is realized side by side with optional or prohibited marking of others (for example, in Romanian);

3.   Object marking is obligatory only for objects coded with definite noun phrases (for example, in Hebrew[143]).

In essence, the optimality theory sees DOM as a way to eliminate ambiguity[144] between different arguments, mainly between subject and object,

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[140] Hopper P., Thompson S. Transitivity in grammar and discourse. P. 253.

[141] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483; Heusinger K., Kornfilt J. The Case of the Direct Object in Turkish. Pp. 3-44; Heusinger K., Kornfilt J. Partitivity and case marking in Turkish and related languages. Pp. 1-40.

[142] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483.

[143] The paper explains that in Hebrew only pronouns, proper names and definite noun phrases are marked. Such an interpretation of the marking of a direct object in Hebrew is given by J. Aissen in accordance with the study of T. Givón (1978) and can be considered as a simplified view of the issue that does not take into account some less frequent factors of Hebrew object marking.

[144] Hence the «principle of disambiguation», which is found in some translations into Russian.

and, relying on two parameters, definiteness and animacy, as well as on the principle of language economy, postulates an observed pattern, which can be briefly formulated as following: since in a typical transitive situation, a high position on the definiteness and animacy scales is occupied by the Agent (subject), and the Patient (object) has low animacy / definiteness status, then the animate and definite Patient or the inanimate and indefinite Agent are marked in a special way in order to eliminate ambiguity.

1.2.2. Transitivity theory

In addition to the optimality theory, there is also an approach that analyzes the DOM phenomenon in terms of *transitivity*. In formal grammar, transitivity (Russian term «perekhodnost'») is seen as a property of the verb related to the number of participants involved and the grammatical roles in which they are implemented. In modern linguistics, the traditional understanding of «perekhodnost'»[145] as a binary grammatical characteristic of the verb is gradually being replaced by the concept of semantic transitivity in the interpretation of the well-known study of P. Hopper and S. Thompson «Transitivity in Grammar and Discourse», where transitivity is considered a gradual, semantic feature, rather than a formal syntactic category[146]. The transitivity theory, proposed by P. Hopper and S. Thompson, focuses on a prototypical transitive event, which is described in a transitive clause. Within this approach, transitivity is a characteristic of a clause rather than a verb, and the degree of transitivity of the clause varies according to 10 parameters that increase or decrease its transitivity[147]. The parameters proposed in P. Hopper and S. Thompson (1980), are generally preserved in later studies.

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[145] In this study, we will use the term «transitivity» to distinguish between a binary grammatical characteristic (actual «perekhodnost'») and a gradual semantic feature (in accordance with the theory of P. Hopper and S. Thompson), as proposed by A.A. Kibrik in Kibrik A.A. Propozitsional'naya derivatsiya i atabaskskiye yazyki [Propositional derivation and Athabaskan languages] // Glagol'naya derivatsiya [Verbal derivation] / V.A. Plungyan and S.G. Tatevosov (eds.). Moscow: JaSK. 2008. Pp. 127-148.

[146] Hopper P., Thompson S. Transitivity in grammar and discourse. Pp. 251–299.

[147] Ibid. P. 252.

Table 2. Transitivity parameters in the transitivity theory

Parameter	High transitivity	Low transitivity
Participants	2 or more (Agent and Object)	1
Kinesis	action	non-action
Aspect	telic	atelic
Punctuality	punctual	non-punctual
Volitionality	volitional	non-volitional
Affirmation	affirmative	negative
Mode	realis	irrealis
Agency	A high in potency	A low in potency
Affectedness of O	O totally affected	O not affected
Individuation of O	O highly individuated	O non-individuated

The last parameter is accompanied by an important explanation, which objects are highly individuated and which are not. In particular, objects expressed by a proper name, singular, animate (especially people), definite and specific objects are considered individuated, and referents expressed by a common noun as well as plural, inanimate, indefinite and abstract/non-specific objects are non-individuated[148].

Obviously, the parameter «individuation of O» in the transitivity theory clearly correlates with the factors animacy and definiteness, which, as indicated in paragraph 1.2.1., most often motivate direct object marking in the optimality theory. However, considering data of various languages within the framework of a multifactorial approach that includes transitivity parameters, researchers of DOM (or more broadly, DAM) observe the influence of other factors, that require *indexing* of semantic Patient, in addition to definiteness and animacy[149]. Moreover,

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[148] Ibid. P. 253.
[149] See for example Kibrik A.E. Iyerarkhii, roli, nuli, markirovannost' i "anomal'naya" upakovka grammaticheskoy semantiki [Hierarchies, roles, zeros, markings and «anomalous» packaging of

many of the parameters proposed in the transitivity theory are semantically independent of each other (for example, a high degree of agency does not correlate with high degree of object affectedness[150], and vice versa).[151]

The influence of several transitivity parameters, including «individuation», on the method of encoding a direct object was also demonstrated on the basis of Semitic languages, in particular, Aramaic, Biblical Hebrew[152] and Amharic. Back in 1984, G. Khan proved that alternations of object marking in these languages appear due to two parameters: status of the NP expressing an object, and status of the clause within the discourse[153]. Khan proposed the parameters of individuation by which status of NP should be considered (Table 3).[154]

Table 3. Hierarchy of individuation, according to G. Khan

Individuated referent	Non-individuated referent
Definite	> Indefinite
Non-reflexive complement	> Reflexive complement
Specific	> Generic
Concrete	> Abstract
Qualified	> Unqualified
Propper	> Common
1st > 2nd > 3rd person >	> Inanimate
Human	
Textually Prominent	> Incidental

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grammatical semantics]. Pp. 27-57; Halevy R. Transitive verbs with non-accusative alternation in Hebrew … Pp. 61-102; Malchukov A., de Swart P. Differential case marking and actancy variation. Pp. 339–355 и т.д.

[150] Beavers J. On affectedness // Natural Language and Linguistic Theory. 2011. No. 29. Pp. 335-370.

[151] Kittilä S. Remarks on the basic transitive sentence // Language Sciences. 24(2). 2002. P. 112.

[152] Subsequently, the fundamental work of P. Bekins on Biblical Hebrew object marking was published: Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. 287 p.

[153] Khan G. Object markers and agreement pronouns in Semitic languages. P. 469.

[154] Ibid. P. 470.

In later studies within the framework of the transitivity theory, it was noted that not all the proposed parameters are relevant in individual languages. However, in general, the more parameters with high transitivity are observed for a particular context, the more likely it is that the clause will be encoded using a typical for a language transitive clause structure (for example, nominative-accusative or ergative-absolute) and that semantic Patient will be marked. Or, if we generelize, that there is an obvious correlation between the presence of object markers and such transitivity parameters as individuation, aspectual, temporal and actional features of the verb and the degree of object affectedness.

In our study, we will rely on both the transitivity theory by P. Hopper and S. Thompson, and on the optimality theory by J. Aissen, since they in a sense complement each other, as will be indicated below, although factors of asymmetric DOM in Modern Hebrew will also include discourse-pragmatic characteristics that have been discussed further in later studies (see 1.2.3).

1.2.3. Other approaches

In more recent studies, the principles proposed by the two above mentioned theories, optimality and transitivity theories, are not perceived as mutually exclusive. For example, Å. Næss points out that both approaches consider the same problem, but from different points of view[155]: optimality theory is designed to find out what a prototypical object looks like in relation to a prototypical Agent, and the transitivity theory measures the degree of transitivity of a prototypical transitive clause with respect to a prototypical intransitive clause. However, both hypotheses consider individuation of the object as the main factor licensing the use of object marker.

The importance of individuation is also emphasized by the third hypothesis, which we call the «role-reference» hypothesis, namely the hypothesis of M. Haspelmath. In M. Haspelmath (2021) he offers an alternative explanation for DAM (DOM, in particular), which the author calls the principle of «role-reference

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[155] Næss Å. Prototypical Transitivity. Amsterdam: John Benjamins. 2007. 240 p.

association»[156]. M. Haspelmath's explanation is based on a direct dialogue with the optimality theory and several other theoretical approaches to DAM. The essence of this principle, which is universal, according to M. Haspelmath, for all languages, is as following: arguments with the role of a higher status usually have a higher referential status (and vice versa), and any deviations from this principle are usually coded by longer grammatical forms[157]. By «roles of higher status» the author means Agents in monotransitive constructions (as opposed to Patients) and Recipients in bitransitive constructions (opposed to Themes)[158].

M. Haspelmath, focuses on referential status (prominence) as motivation for Differential Object Marking (which the author calls «split P flagging»), and following other authors, considers «inherent» (7a) and discourse characteristics of an object (7b).[159]

(7a) Inherent prominence scale

person scale: locuphoric (first/second) > aliophoric (third person)

(full) nominality scale: person form (independent or index) > full nominal

animacy scale: human (> animal) > inanimate

(7b) Discourse prominence scale

definiteness scale: definite (> specific indefinite) > indefinite nonspecific

givenness scale: discourse-given > discourse-new

focus scale: background > focus

Moreover, the further to the left the argument is on each of these scales, the higher its referential status (prominence) is[160].

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[156] Haspelmath M. Role-reference associations and the explanation of argument coding splits. Pp. 123-174.
[157] Ibid. P. 164.
[158] Ibid. P. 127.
[159] Ibid. Pp. 127-128.
[160] Ibid.

In comparison with the optimality and the transitivity theories, discussed in 1.2.1-1.2.2., «role-reference» approach, firstly, pays significant attention to referential status as a DOM factor, which, as an aspect, includes definiteness, and secondly, complements the scale of referential status with pragmatic characteristics of arguments, which is in line with modern trends in DOM research, and will be highly important in this study as well.

Thus, the tendency to identify several levels required for the study of DOM, most often semantic, pragmatic and deictic, seems to be quite common in the linguistic literature nowadays. In particular, the Russian linguist P.M. Arkadyev, who refutes the principles of economy and disambiguation that underlie the generally accepted approaches to DAM and argues that the motivation for this phenomenon is iconicity[161], also recognizes semantic, pragmatic and deictic characteristics of the object as the factors that regulate different strategies for case marking[162].

1.3. Types of Differential Object Marking

In the DOM typology, the principal feature is the opposition of «symmetric» and «asymmetric» types of marking[163]. With symmetric marking, the variability of object coding is realized by the use of various overt case markers, whereas with asymmetric marking, the alternation is between zero and accusative marker (Ø *vs* ACC). Below we will discuss the features of each type of DOM and the motivations for each of the types, described in current research.

1.3.1. Asymmetric marking

The term «asymmetric DOM» describes a phenomenon of variable morphosyntactic coding of the second argument of a bivalent verb, realized as a direct object grammatically, where the alternation is zero marker (Ø) and

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[161] According to which «participants in a situation with the same or similar semantic roles» should be coded differently if they «have different semantic and pragmatic properties» (Arkadyev P.M. Teoriya padezhnogo markirovaniya v svete dannykh dvukhpadezhnykh sistem [Theory of case marking in the light of data from two-case systems]. P. 59).

[162] Arkadyev P.M. Teoriya padezhnogo markirovaniya v svete dannykh dvukhpadezhnykh sistem [Theory of case marking in the light of data from two-case systems]. P. 59.

[163] Malchukov A., de Swart P. Differential case marking and actancy variation. P. 347.

accusative marker (ACC). Within the framework of the functional-typological approach, at the moment, the presence of an accusative marker is believed to be influenced by «individuation of the object», which, both within the framework of the optimality theory and the transitivity theory, can be generalized as a combination of animacy and/or definiteness (see 1.2.). And the definiteness parameter will not always imply the presence of formal indicators of determination. For example, in Spanish, you can find the following examples of asymmetric object marking[164]:

(8a) *Necesité*   ***a   una   mujer****para el experimento*
      need.PST.1SG   ACC INDEF   woman   for experiment
      'I needed **a [certain] woman** for an experiment.'

(8b) *Necesito*   ***una   mujer***   *que   sepa   inglés*
      need.PRS.1SG   INDEF woman   who   knows   Englsih
      'I need **a woman**, who knows English.'

In example (8a), despite the indefinite status of the NP *una mujer*[165]*,* in this context, this object is an indefinite specific object that, in general, requires obligatory marking. Whereas in example (8b), the object *una mujer* is realized with a zero accusative marker, since in this context «a woman» is an indefinite and non-specific object, which, according to the rules of Spanish, is not marked.

Because of such data individuation is often associated with the discourse prominence of the referent (discussed in 1.2.3.),[166] and, according to S. Kittilä, the

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[164] Examples are based on Vanrell M. del M.B., Romeu J. A minimal cartography of Differential Object Marking in Spanish // IBERIA: An International Journal of Theoretical Linguistics. 2014. No 6. Pp. 75–104. [Electronic sourse] URL: https://revistascientificas.us.es/index.php/iberia/article/view/3007 (accessed: 02.07.2023).
[165] Compare with the Russian sentence «Yesterday we saw a man who assured us that there would be a thunderstorm today».
[166] Compare S.Kittilä's position on the importance of the discourse prominence with the discourse prominence scale by M. Haspelmath (see 1.2.3.).

effect of asymmetric object marking lies largely in the field of pragmatics[167]. Thus, the asymmetric type of DOM[168], apparently, should be closely connected to the prototypical characteristic of the direct object specified in the parameters of transitivity, the so-called *topicality*, which will be discussed in more detail in 1.4.

Let us consider how the approaches to DOM described in 1.2. affect our understanding of the factors that regulate the asymmetric type of DOM, and its motivation in general.

As mentioned in 1.2., the motivation of the asymmetric model of DOM can be explained within the framework of three different approaches that put forward three different basis for object marking: 1) disambiguation[169], 2) Patient indexing, and 3) deviation from the reference-role association.

The first explanation, the disambiguation between arguments, proposed in the framework of the optimality theory, suggests that object marking, first of all, is used to distinguish between the grammatical roles of subject and object, and therefore those objects that have common features with prototypical subjects, i.e. having a high degree of definiteness and animacy, are most likely to be marked. This approach determines the degree of definiteness and animacy using two scales, definiteness and animacy, respectively.

The second hypothesis about the motivation of asymmetric marking, put forward in the study by P. Hopper and S. Thompson in the framework of the transitivity theory, argues that the role of such factors as definiteness and animacy in the optimality theory is greatly exaggerated, and the basis for marking an object is often indexing the object as a semantic Patient[170]. The individuation of the object in this theory is important to the same extent as the individuation of the subject, since, according to P. Hopper and S. Thompson, the prototypical transitive clause, i.e. having the highest transitivity, will be the one where both subject and object

[167] Kittilä S. Case and the typology of transitivity // The Oxford handbook of case, eds. A. Malchukov and A. Spencer. Oxford: Oxford University Press. 2009. Pp. 357-358.

[168] In our study we will use both «asymmetric type of DOM» and «asymmetric object marking».

[169] Or «ambiguity avoidance», in the terminology of M. Haspelmath (see above).

[170] Hopper P., Thompson S. Transitivity in grammar and discourse. Pp. 251–299.

have a high degree of individuation. As in the optimality theory, in the transitivity theory, individuation is determined using a cluster of parameters and is a gradual feature, influencing, among other things, the transitivity of the clause.

In more recent studies, these two explanations, proposed within the framework of two different theories, are not perceived as mutually exclusive. Moreover, it is important for our study that all of the above theories consider the individuation of the object as the main factor licensing the asymmetric type of DOM, which is most often discussed. The factors licensing the DOM, and in particular those correlating with the asymmetric type of object marking, will be discussed in more detail in 1.4.

1.3.2. Symmetric marking

Whereas in the asymmetric type of DOM, the object is encoded with either zero or an accusative marker, in the symmetric type, the object is encoded using two different markers, usually accusative and non-accusative. The variability of the symmetric type of object marking seems to be primarily motivated by the Patient indexing motivation rather than the disambiguation motivation, since all encoding options require the presence of case marker[171]. At the same time, since Patient in the prototypical transitive clause is associated with an accusative, the encoding of an object using a non-accusative marker is itself marked, which means that it signals a semantic deviation from the transitive prototype. In verbs traditionally associated with Agent-Patient roles, this dichotomy is usually regulated by the verb, degree of affectedness and individuation of the object[172].

A standard example of a language with a symmetric type of DOM is Finnish, which has a regular alternation of accusative and partitive cases, as in the examples below[173]:

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[171] De Hoop H., Malchukov A. Case-marking strategies // Linguistic Inquiry. 2008. Vol. 39.Pp. 565–587.

[172] Malchukov A., de Swart P. Differential case marking and actancy variation. P. 339–355.

[173] These examples are based on Kiparsky P. Partitive case and aspect. Pp. 265-307. However, we note that, according to P. Kiparsky, they illustrate only one of the object marking variations, which are implemented depending on several syntactic and semantic factors.

(9а)   *Ammu-i-n*   **karhu-t**

         shoot.PST.1SG   bears.ACC

         'I shot **the bears**.'

(9б)   *Ammu-i-n*   **karhuj-a**

         shoot.PST.1SG   bears.PART

         'I shot **bears**' / 'I shot **at bears**' / 'I shot **at the bears**.'

The use of the accusative case in (9a) indicates a high degree of affectedness and individuation of the Patient, and also, according to P. Kiparsky, implies the presence of the parameter «effectiveness of the action», which, in combination with the object in the accusative, makes it more likely to interpret the predicate as a perfective.[174] Whereas the use of the partitive case in (9b) allows to interpret the sentence in different ways, taking into account the type of predicate, partial affectedness or non-affectedness of the Patient and low degree of individuation.

The phenomenon of symmetric DOM was also observed and described in the Biblical Hebrew. M. Malessa[175], W. Garr[176] and P. Bekins[177] give examples of the alternation between the Patient coding by the accusative and the locative/partitive case. In particular (the examples of P. Bekins):

(10a)   *wayyak*   **ʾet-pəlištîm**

         and-strike down.PST.3MSG   ACC.Philistines

         'He struck down **the Philistines**.' (2 Sam 23:12)

(10б)   *wayyak*   **bappəlištîm**   *ʿad kî-yāgəʿāh*   *yādô*

         and-strike down.PST.3MSG   at-Philistines   until tire.PERF.3FSG   hand-his

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[174] Kiparsky P. Partitive case and aspect. Pp. 265-307.

[175] Malessa M. Untersuchungen zur verbalen Valenz im biblischen Hebräisch. Assen: Van Gorcum, 2006. 248 p.

[176] Garr W.R. Affectedness, aspect, and Biblical Hebrew 'et // Zeitschrift für Althebraistik. Vol.4/2. 1991. Pp. 119-134.

[177] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. P. 70.

'He was striking down **the Philistines** until his arm got tired.' (2 Sam 23:10)

Coding the Patient with accusative in example (10a) corresponds to the perfective, since, as P. Bekins comments, the event is depicted as fully completed, i.e. the Philistines were defeated. The use of the preposition *bə-* («at» in glossing), however, contributes to the interpretation of the situation as incomplete.[178]

Other bivalent verbs can also be embedded into this structure, which cannot accept prototypical Agents and Patients. In this case, according to functional and typological studies, symmetric type of marking can also be observed with intransitive verbs, but co-variation will be observed with a wider set of semantic factors.[179]

In Modern Hebrew, both symmetric and asymmetric DOM can be observed. Moreover, some transitive verbs will allow both asymmetric and symmetric type of object marking, but research on the latter (symmetric type) in Modern Hebrew is very scarce. The Israeli linguist N. Stern in his study published in 1979 calls such variation, which is quite common for some verbs, a «stylistic variant»[180], although he further explains that semantic differentiation can still be traced. A recent study by R. Halevy, however, confirms N. Stern's observation about the semantic motivation of symmetric DOM on the basis of a wide range of semantic factors[181]. The symmetric type of object marking in Modern Hebrew will not be considered in this research.

1.4. Factors of Differential Object Marking in Linguistic Typology

In 1.2.-1.3. we have listed various factors that the authors of different theories and approaches consider to be licensing the object marking alternations. Among them were definiteness (or, more broadly, referential status), animacy,

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[178] Ibid.

[179] More details in Kiparsky P. Partitive case and aspect. Pp. 265-307, Tsunoda T. Remarks on transitivity // Journal of Linguistics. 1985. Vol. 21. Pp. 385–396; Malchukov A., de Swart P. Differential case marking and actancy variation. P. 339–355.

[180] The Stern N. שטרן נ. פועלי "את" בעברית הישראלית \\ בלשנות עברית חפ"שית. 17. 1979. עמ' 57-28 'et Verbs in Israeli Hebrew // Hebrew Computational Linguistics. 1979. No. 15. Pp. 28-57.

[181] Halevy R. Transitive verbs with non-accusative alternation in Hebrew … Pp. 61-102.

aspectual and other characteristics of the predicate, information structure, word order, discourse prominence, and others.

Very often, DOM is associated with definiteness and/or animacy[182] (Hungarian, Spanish). The importance of information structure (Turkic languages, Persian[183], Khanty[184]) is often noted. In the Mari language, for example, direct object marking with an accusative and zero object marking are equally acceptable options, from the syntax point of view. However, some cases of accusative marking, which cannot be explained from the standpoint of syntax, are easily explained, taking into account the sentence information structure.[185] Sometimes referential status, information structure and discourse prominence are combined into a single prominence factor, which N.V. Serdobolskaya and S.Yu. Toldova[186] call an «integrated» approach. That is, the set of factors and the degree of their influence often varies from case to case and from language to language.

Therefore, in most modern research of DOM, the authors consider not one, but several parameters by which co-variation occurs. Such a multifactorial approach was implemented, in particular, by Russian researcher studying the data from the Finno-Ugric and Russian languages.[187] As part of our dissertation research on asymmetric object marking in Modern Hebrew, we will focus on the

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[182] Hopper P., Thompson S. Transitivity in grammar and discourse. Pp. 251–299; Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483.

[183] Bossong G. Empirische Universalienforschung. 185 p.

[184] Dalrymple M., Nikolaeva I. Objects and information structure. 247 p.

[185] Serdobolskaya N.V., Toldova S.Yu. Nekotoryye osobennosti oformleniya pryamogo dopolneniya v mariyskom yazyke [Some features of the direct object coding in the Mari language]. Pp. 106-124.

[186] Serdobolskaya N.V., Toldova S.Yu. Differential Marking of Direct object in Finno-Ugric Languages // Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches. Moscow: Languages of Slavic cultures. 2012. Pp. 59-142.

[187] Ronko R.V. Nominativnyy ob"yekt v drevnerusskom yazyke i severnorusskikh dialektakh v areal'noy i tipologicheskoy perspektive [The Nominative Object in the Old Russian Language and Northern Russian Dialects in Areal and Typological Perspective]. 136 p., Serdobolskaya N.V., Toldova S.Yu. Nekotoryye osobennosti oformleniya pryamogo dopolneniya v mariyskom yazyke [Some features of the direct object coding in the Mari language]. Pp. 106-124, Serdobolskaya N.V., Toldova S.Y. Differential Marking of Direct object in Finno-Ugric Languages // Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches. Moscow: Languages of Slavic cultures. 2012. S. 59-142.

following factors: individuation (including both definiteness and referential status), animacy, identifiability and accessibility in discourse, and topicality of the referent.

1.4.1. Individuation, definiteness and referential status

As noted above, the priority factor motivating object marking alternations is considered to be «individuation of the object», which typically means considering «definiteness» and «animacy» of the object.

However, the content of the «definiteness» category is interpreted by researchers in different ways, depending on the theoretical paradigm within which the study is carried out.

Regardless of the approach chosen by the researcher, however, when studying the definiteness parameter, the role of the so-called «determiners»[188] (in other terminology, «determinanor»[189] in Russian) becomes a separate topic, since determiners are service words that accompany the noun and in various ways determine and clarify the range of its reference. Such words contribute to a clearer understanding of the type of correlation between the noun and reality, which is extremely important for the analysis of DOM in general and in Hebrew in particular, since this phenomenon, in fact, is a way of verbally coding a Patient participant in a situation that takes place in reality.

From a theoretical point of view, determiners are interpreted ambiguously, and in the linguistic literature of recent decades, several different approaches to their role in the composition of the NP were presented.[190] Since determiners (particularly the definite article, which is sometimes included in this category) are

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[188] In Russian language, see, for example, Barkhudarov L.S. Struktura prostogo predlozheniya sovremennogo angliyskogo yazyka [The structure of a simple sentence of modern English]. Moscow; Vysshaya shkola, 1966. Pp. 44-64; Gak V.G. Teoreticheskaya grammatika frantsuzskogo yazyka [Theoretical grammar of the French language]. Part I, 2nd ed. Moscow, 1986. Pp. 87-89; Yakovenko O.V. Kognitivno-semanticheskiye svoystva determinativov v angliyskom yazyke [Cognitive-semantic properties of determiners in English]: Dis. ... Cand. Philol. Sciences: 10.02.04. Pyatigorsk, 2005. 201 p.

[189] See, for example, Testelets Y.G. Vvedeniye v obshchiy sintaksis [Introduction to General Syntax]. Moscow, 2001. 796 p.

[190] For more detailes, see Alekseeva M.E. O probleme determinativov v kontekste sovremennykh sintaksicheskikh teoriy [On the problem of determinatives in the context of modern syntactic theories] // Vestnik Sankt-Peterburgskogo universiteta. Vostokovedeniye i afrikanistika [Vestnik of Saint Petersburg University. Asian and African Studies]. 2009. No.1. Pp. 107-113.

an important element of the syntactic structure of any noun phrase[191] (NP) (and within the framework of some approaches are even considered to be the head element — see below «DP hypothesis»), and also often indicate the definite/indefinite status of the NP, which, in turn, is widely accepted to be the main factor of Modern Hebrew DOM, we will review these approaches more closely.

Theoretical syntax classifies elements that have referential or quantitative functions, mainly on the basis of their distribution, i.e. according to their position in relation to the head of the NP and depending on the degree of compatibility with other functional elements. In many studies within the framework of formal syntax, the determiner is considered as the head of the «Determiner Phrase (DP)», in which NP is included as a dependent[192]. According to this hypothesis (the DP Hypothesis) and later versions of generative grammar, the determiner is a functional head, which is structurally set against the lexical heads (N, V, A, P). The hypothesis itself and the conclusions built on its basis have been questioned more than once. In particular, the focus has been on the non-universality of the DP projection[193], the existence of «zero» DPs, i.e. phonetically not expressed, but existing within the semantics and syntax[194]. There also was an attempt to

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[191] In this study, the term «noun phrase» (NP) is understood as a component of the hierarchical structure of the sentence, which has the syntactic properties of a noun, and which can be headed by both a noun, a noun-pronoun, including: personal, reflexive, interrogative, relative, indefinite, negative; a quantifier and some others (Podlesskaya V.I. Imennaya gruppa [Noun phrase] // Russkaya korpusnaya grammatika [Russian Corpus Grammar]. 2011. [Electronic resource]. URL: http://www.rusgram.ru/new/chapter/label/Именная_группа/ (accessed 10.06.2023)).

[192] Szabolcsi A. Functional categories in the noun phrase // Approaches to Hungarian, 2 / István Kenesei (ed.). Szeged: JATE, 1987. Pp. 167–190; Abney S. The Noun Phrase in Its Sentential Aspect. MIT PhD dissertation. Cambridge, 1987. 363 p.; Stowell T. Determiners in NP and DP // Views on phrase structure / K.Leffel, D.Bouchard (eds.) Berlin: Springer, 1991. Pp. 37–56 и другие.

[193] Bošković Ž. What will you have, DP or NP? // Proceedings of NELS, 37 / E.Elfner, M.Walkow (eds.). Amherst, MA: GLSA, 2008. Pp. 101–114; Chierchia G. Reference to kinds across languages // Natural Language Semantics, 6. 1998. Pp. 339–405.

[194] Longobardi G. How comparative is semantics? A unified parametric theory of bare nouns and proper names // Natural Language Semantics, 9. 2001. Pp. 335–369.

reinterpret the abbreviation DP «determiner phrase» as «Definiteness Phrase»[195] and to prove the fundamental fallacy of the DP Hypothesis[196].

At the same time, there is a debate about which elements should be included in the class of determiners. Authors include or, on the contrary, exclude from the lists of determiners articles, some types of pronouns, possessives, quantitative and ordinal numerals[197]. On the basis of their distribution, in particular on the Hebrew data, it was proposed to distinguish between determiners and quantifiers[198], and introduce the concept of «quantifier phrase» (QP) as an element of a higher hierarchical level.[199]At the same time, some studies[200] count all of the above as determiners.

Thus, the term «determiner» in current literature is used both in a broad sense, covering, for example, quantifiers as a subclass, and in a narrower sense, excluding quantifiers as a separate category. In this study, we adhere to the second point of view.

Determiners are considered not only within the framework of syntactic theories, but also from the point of view of semantics, and in this case, researchers are interested, first of all, not in the patterns of distribution of elements within an NP, but in its interpretation. Within semantics, the differentiation between determiners and quantifiers, which in recent decades has become widely accepted

[195] Lyons Ch. Definiteness. Cambridge University Press, Cambridge, 1999. 380 p.
[196] Bruening B. Selectional asymmetries between CP and DP suggest that the DP Hypothesis is wrong // University of Pennsylvania Working Papers in Linguistics / Laurel MacKenzie (ed.). Vol. 15(1): 5. 2009. Pp. 26-35..
[197] Gak V.G. Teoreticheskaya grammatika frantsuzskogo yazyka [Theoretical grammar of the French language]. Part I, 2nd ed. P. 87-89; Giusti G. The categorial status of determiners // The new comparative grammar. London: Longman, 1997. Pp. 95-123; Leu T. The Internal Syntax of Determiners. New York University PhD dissertation, September 2008. 224 p.; Szabolcsi A. The Noun Phrase // Syntax and Semantics 27: The Syntactic Structure of Hungarian / F. Kiefer, K. É. Kiss (eds.). San Diego: Academic Press, 1994. Pp. 179-274.
[198] Shlonsky U. Quantifiers as functional heads: A study of Quantifier Float in Hebrew. Pp. 159–180; Stowell T. Determiners in NP and DP. Pp. 37–56.
[199] For more information about current studies of the relationship between referential and quantitative NPs, see: Determiners and Quantifiers: Functions, Variation, and Change / C. Gianollo, K. von Heusinger, M. Napoli (eds.). Leiden: Brill. 2021. 319 p.
[200] Quirk R., Greenbaum S., Leech G. and Svartvik J. A comprehensive grammar of the English language. London, 1985. 1779 p.

in syntactic analysis, becomes much less obvious, and the two main categories are named «referring» and «quantitative» expressions[201]. At the same time, if within syntactic theories the definite and indefinite NPs differ only slightly, since definite and indefinite articles were equally considered heads of DP projection[202], the semantic approach requires researchers to understand the fundamental differences in the semantic functions of various determiners, including definite and indefinite articles.

Over the past two decades, researchers[203] have been actively working on the unified theory that could comprehensively and consistently explain the principles of cross-language variation at the junction between meaning and form, but at the moment without success[204]. However, taking into account that in different languages there are contexts in which the article assumes atypical functions, sometimes the very possibility of the existence of a unified theory that would combine semantic and syntactic data is doubtful.

In particular, despite the postulated in some cases correlation between formal definiteness of the NP and its specific (referential) status, it has been repeatedly proved that not in all cases the NP coded by the definite article will receive the specific status. For example, the so-called weak definites are syntactically recognized as the determiner group (DP), but semantically do not

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[201] Gianollo C., Heusinger K., Napoli M. Reference and Quantification in Nominal Phrases … Pp. 1-28.

[202] Attempts to syntactically distinguish between definite and indefinite NPs (in particular, NPs coded by definite and indefinite articles) were also made within the framework of the DP hypothesis. The proposed solution was, for example, not to consider the indefinite article as a determiner, which is obviously an uncovincing argument. For more information, see, for example, Abney S. The Noun Phrase in Its Sentential Aspect. P. 222; Kayne R. The antisymmetry of syntax. Cambridge, MA: MIT Press, 1994. P. 124; Lyons Ch. Definiteness. Pp. 89-94.

[203] See, for example, Harder P. Determiners and Definiteness: Functional semantics and structural differentiation // Essays in nominal determination: from morphology to discourse management/ H.H.Muller, A.Klinge (eds.). Amsterdam, 2008. Pp. 1-27; or read more about similar studies: Crosslinguistic studies on noun phrase structure and reference / C.Hofherr, P. Zribi-Hertz, A. Zribi-Hertz (eds.). Leiden: Brill, 2014. 397 p.

[204] Gianollo C., Heusinger K., Napoli M. Reference and Quantification in Nominal Phrases … P. 1.

imply singularity and behave rather like indefinite NPs[205]. In some languages, the use of singular and plural definite articles allows to interpret an NP as a generic one[206].

The semantic meanings of indefinite articles also differ. Factors influencing the interpretation of an indefinite article may be the surrounding context and competition with alternative indefinite expressions that exist in the language. In particular, typological studies provide examples of interpreting NPs coded with indefinite article as specific in some cases and non-specific (existential) in others[207].

The questions about the functions and distribution of articles, as well as about their nature and relationship with determiners were discussed also within the field of *Semitic studies*. In particular, opinions about the definite article, which is the only article in the Hebrew language, have changed significantly over the past decades. In the classic study of the Israeli linguist U. Ornan (1965), the article is perceived as a full-fledged word[208]. According to the typology proposed by J. Kramski in 1972, in Hebrew, along with other Semitic (for example, Aramaic) and non-Semitic languages (Urartian, Hausa, Somali, etc.), the definite article is represented by a clitic.[209] E. Ritter (1988) also considers the article in Hebrew as a clitic[210], but in later studies this approach is contested[211], and H. Borer and Sh.

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[205] See Carlson G., Sussman R., Klein N., Tanenhaus M. Weak definite noun phrases // Proceedings of NELS 36 / C.Davis, A.R. Deal, Y. Zabbal (eds.). Amherst, MA: GLSA. 2006. Pp. 179–196.

[206] For more information see Borik O., Espinal M. T. On definite kinds // Recherches linguistique de Vincennes 41. 2012. Pp. 123–146.

[207] For further details see Fodor J., Sag I. Referential and quantificational indefinites // Linguistics and Philosophy. 1982. Vol. 5. Pp. 355–398; Heusinger K. Specificity and definiteness in sentence and discourse structure // Journal of Semantics. 2002. Vol. 19(3). Pp. 245–274; Schwarzschild R. Singleton indefinites // Journal of Semantics. 2002. Vol. 19. Pp. 289–314.

[208] Ornan U. The Nominal Phrase in Modern Hebrew. Part 1. Introduction and article. Jerusalem, 1965. 42 p.

[209] Kramski J. The article and the concept of definiteness in a language. The Hague, 1972. P. 158-159.

[210] Ritter E. A head-movement approach to construct-state noun phrases. // Linguistics 26. 1988. Pp. 909-929; Ritter E. Two functional categories in noun phrases: evidence from Modern

Wintner propose that the article is an affix that is attached to nouns at the lexical level, forming words and not phrases[212]. Moreover, different opinions are expressed as to what role the article plays in the NP stucture and whether it participates in syntactic processes. U. Schlonsky and T. Siloni point out that the article is an active participant in syntactic processes[213], while Sh. Wintner holds the opposite opinion, proving, thereby, that NPs are headed by nouns, and not functional (particularly, empty) categories.[214]

According to Sh. Wintner, these studies are united by the fact that they all concentrate primarily on the formal characteristics of the studied structures, on the features of distribution and compatibility of NP elements, deliberately «suppressing» their semantic characteristics to display a more obvious structure.[215] Definiteness, which is one of the central points in our study, in the research published by Sh. Wintner and H. Borer, is interpreted as «an abstract characteristic of nouns in Hebrew», which does not correlate unambiguously «neither with the presence of a definite article nor with semantic definiteness».[216] In our opinion, this definition is very vague and does not provide the means to distinguish between definite and indefinite NPs, so this study will take into account, on the one hand,

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Hebrew // Perspectives on phrase structure: heads and licensing (Syntax and Semantics 25), ed. By Rothstein, S. D. New York: Academic Press. 1991. Pp. 37-62.

[211] Siloni T. Noun raising and the structure of noun phrases // Papers from the Third Student Conference in Linguistics (MIT Working Papers in Linguistics 14), ed. by Bobaljik J . D. & Bures T. Cambridge, MA: MIT. 1991. Pp. 255-270.

[212] For arguments in favor of this approach, see Borer H. The construct in review // Studies in Afro-asiatic grammar / Lecarme J., Lowenstamm J, Shlonsky U. (eds.). The Hague: Holland Academic Graphics. 1996. Pp. 36-61; Wintner Sh. The affixal nature of the definite article in Hebrew // Computational linguistics in the Netherlands 1997. Selected papers from the Eighth CLIN Meeting, Number 25 in Language and Computers: Studies in Practical linguistics / Coppen, P.-A., van Halteren H., Teunissen L. (eds.). Amsterdam, 1998. Pp. 145-167; Wintner Sh. Definiteness in the Hebrew Noun Phrase. Pp. 319-363.

[213] Shlonsky U. Hebrew construct state nominals, Arabic verb-initial clauses and the head movement constraint. L'Université du Québec à Montréal, 1991. 181 p.; Siloni T. Noun phrases and nominalizations. Ph. D. thesis, Department de linguistique generale, Universit6 De Geneve. 1994.

[214] For detailed arguments in favor of this point of view, see Wintner Sh. The affixal nature of the definite article in Hebrew. Pp. 145-167; Wintner Sh. Definiteness in the Hebrew Noun Phrase. Pp. 319-363.

[215] Wintner Sh. Definiteness in the Hebrew Noun Phrase. P. 344.

[216] Ibid. P. 323-324.

the formal indicators of determination in the NP structure, but also, the semantic characteristics of the NP and various pragmatic factors, that may affect the coding and the interpretation of the NPs in Modern Hebrew.

Choosing this approach, we rely not only on the theoretical studies of foreign researchers on discourse-oriented syntax and a limited number of existing studies on Modern Hebrew syntax,[217] but also on a wide range of research done by Russian linguists, mainly studying the definiteness category from the standpoint of the discourse-semantic analysis of sentences and referring expressions used in them. For instance, «determiners», that are typically used in formal syntactic approaches, Russian researchers interpret in terms of actualization and cognitive processes. Yu.A. Levitsky[218] following C. Bally, considers determiners to be an important element of the actualization process of the concept, i.e. identifying them «with the real notion of the speaking subject»,[219] thereby making them an integral part of the process of translating language into speech. And later, S.I. Potapenko describes the functioning of determiners in speech, depending on the type of audience, based on the achievements of cognitive linguistics and the cognitive-operational method.[220]

Thus, in contrast to formal syntax approach, in functionalist linguistics, within the framework of which this study is carried out, the category of definiteness is considered to be a functional-semantic category, with grammemes of grammatical categories as the means of expression. In addition to the article, the generally accepted grammatical indicator of this category, definiteness and indefiniteness can be expressed by deictic elements (demonstratives), numeral

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[217] Most studies of Modern Hebrew syntax are traditionally based on theoretical and methodological principles developed in American and Western European linguistics and are overwhelmingly based on the analysis of formal structures within the formal syntax approach.

[218] Levitsky Yu.A. Nekotoryye voprosy teorii aktualizatsii (funktsii slov-ukazateley) [Some Questions of the Theory of Actualization (Functions of Index Words)]: Diss. . . Cand. Philol. Science / Y.A. Levitsky. Moscow: MGU, 1970. 288 p.

[219] Bally C. Obshchaya lingvistika i voprosy frantsuzskogo yazyka [General linguistics and issues of the French language]. Moscow: Foreign Literature, 1955. P. 87.

[220] Potapenko S.I. Ritoricheskiy aspekt funktsionirovaniya determinantov angliyskogo yazyka [Rhetorical aspect of the functioning of the determinants of the English language]: dis. ... Candidate of Philol. Sciences. Kiev, 1991.

«one», case markers, prosodic elements[221] (for example, stress), etc. However, even if there are grammatical indicators of definiteness (for example, articles) in the language, the semantic characteristics of a «definite NP» vary. Let us consider what theoretical and methodological principles form the basis for understanding the category of «definiteness» in this case, since they will be used as the basis of this study.

I.A. Melchuk considers *definiteness* as a category, «the grammemes of which indicate the way of identifying the referent of a given noun phrase»[222]. J. Hawkins argues that, using a definite NP, the speaker makes it clear to the addressee which referent among the sets of objects pragmatically selected on the basis of knowledge common to the speaker and the addressee or on the basis of the conditions of the speech act, he means[223]. In other words, it is the grammemes of the definiteness category that make it possible/impossible for the participants of the speech act to identify the object described, which closely connects the definiteness category with the referential characteristics of the NP, but, as mentioned above, does not necessarily denote their identity.

This approach in theoretical studies on semantic definiteness is sometimes called the «identifiability theory»[224].

In this study, the term «definiteness» will refer to a formal feature, expressed by definiteness markers in the NP. Semantic and pragmatic aspects will also be considered, particularly, in regards to the parameter «referential status»[225].

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[221] Gadiliya K.T. Kategoriya opredelennosti i neopredelennosti v kontekste predikatno-argumentnoy struktury predlozheniya v nekotorykh zapadnoiranskikh yazykakh [The Category of Definiteness and Indefiniteness in the Context of the Predicate-Argument Structure of a Sentence in Some Western Iranian Languages] // Voprosy yazykoznaniya [Questions of Linguistics]. 2009. No 1. P. 84.

[222] Melchuk I. A. Kurs obshchey morfologii [Course of General Morphology]. T. 2. P. 139.

[223] Hawkins J.A. Definiteness and indefiniteness: a study in reference and grammaticality prediction. London: Croom Helm, 1978. P. 17.

[224] Other approaches include the classical theory, or «uniqueness theory», which goes back to logical constructions (see, for example, Russell B. Logic and Knowledge. London: Allen and Unwin, 1956. 256 p.), the «familiarity theory» and the «theory of relevance».

[225] The issue will be discussed in more detail below.

Referential status will be considered as one of the factors, along with others, licensing asymmetric object marking in the Modern Hebrew.

According to the definition of E.V. Paducheva, reference is «the interrelationship and the correlation of linguistic expressions with extralinguistic objects and situations»[226], or in other words, with reality. E.V. Paducheva was the first in the Russian semantic tradition to distinguish between the reference and the meaning. E.V. Paducheva notes that «the predetermination of the reference by meaning and the role of semantic and pragmatic factors in the reference is not the same for different types of expressions»[227]. For example, proper names in the language do not have their own meaning and their reference is based not on their own meaning, but on the extralinguistic knowledge of the interlocutors. In particular, sometimes the correct interpretation of the message requires an understanding of the properties of the designated objects (e.g., *Paris is always Paris*). Indexical (or deictic) words and expressions (for example, *I, you, here, now),* on the contrary, have their own meaning*,* and their referent in the context of a particular speech act is always uniquely recognized. Common names themselves do not have a reference, and acquire it only as part of descriptions[228] (for example*, the capital of Brazil* is built using a relational name, and *this book* is built using a determiner (in other theoretical approaches, a close term is actualizer[229])).

While on the issue of referentiality, it is necessary to mention the term «coreference». It refers to the relationship between different expressions that refer to the same referent. Corereferential NPs are marked (indexed) in the text as follows:

(11) *What do you think about Valisy$_i$? It seems, he$_i$ is not a bad person.*

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[226] Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. P. 79.

[227] Ibid. P. 81.

[228] Ibid. Pp. 81-82.

[229] The term by C. Bally. Bally C. Obshchaya lingvistika i voprosy frantsuzskogo yazyka [General linguistics and issues of the French language]. 416 p.; Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. Pp. 85-86, etc.

In this example, *Vasily* and *he* are coreferential, that is, they refer to the same referent. But in terms of their characteristics, they differ significantly. The proper name *Vasily* (called by the term «antecedent») in the context of a specific speech act carries a much greater information load than the pronoun *he*. This difference is reflected in the juxtaposition of «full» NPs (proper nouns or common nouns (as part of descriptions)) and «substitute» NPs (pronouns and null noun groups). It is possible to correctly interpret the latter only in context, in most cases using the previous fragment of the text, so this phenomenon is called *anaphora* (from the Greek *anapherein* «carrying back»), and expressions used in this function are called anaphoric.

Hence, there are three types of definiteness[230], depending on the type of information on the basis of which the addressee identifies the object[231]:

1) situational (or deictic) definiteness, determined by the conditions of communication, in particular, by what surrounds the participants of the speech act; this kind of definiteness is characteristic, in particular, for proper nouns and personal pronouns,

2) anaphoric definiteness, meaning that the described object has already been mentioned in the previous text (pretext), and could be discussed by the participants in the communication,

3) associative definiteness, based on both anaphoric and semantic connections with another expression used in the pretext or identified by the

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[230] An almost identical classification is presented in Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P. 74. However, instead of the concept of «definiteness», Shmelev uses «familiarity» to indicate that the «definiteness» of the object will be due to the «familiarity» of the referent encoded by the object to the participants of the communicative act.

[231] Melchuk I. A. Kurs obshchey morfologii [Course of General Morphology]. T. 2. 544 p.; Hawkins J.A. Definiteness and indefiniteness: a study in reference and grammaticality prediction. London: Croom Helm, 1978. 316 p.; Muravyova I.A. O traktovke neoformlennogo imeni v tyurkskikh yazykakh [On the interpretation of an unformed name in the Turkic languages] // Issledovaniya po teorii grammatiki [Studies on the theory of grammar] / Ed. V. A. Plungyan (responsible), V. Y. Gusev, A. Y. Urmanchieva. Moscow: Gnosis, 2008. Iss. 4. Pp. 321-421.

participants of the situation; in this case, the reference of the noun is carried out through the definiteness of other objects referred to in the discourse[232].

It shoul be noted, that different types of definiteness (as well as the dichotomy «definite / indefinite NP» in general) in different languages can be expressed using different linguistic means. For example, the definite article does not have to be used in coding the NPs representing all three types of definiteness: the use of the article can be limited only to contextual (anaphoric) definiteness[233]. In the same way, as mentioned above, the presence of a definite article does not necessarily imply that the NP will be a specific one — in English, French and some other languages, definite article can also be used in non-specific NP, for example, if it is used in a generalizing function (that is, with non-referential universal and generic NPs according to the classification of E.V. Paducheva[234]).

1.4.2. Identifiability, accessibility, and givenness

The explanation of the complex mechanism of reference described in 1.4.1. is made within the framework of the cognitive-oriented approach to the process of speech generation[235], according to which the choice of a particular referring expression, i.e. referential choice[236], depends on the cognitive system of a person

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[232] See the concept of «coordinating values» for referencing in Arutyunova N.D. Predlozheniye i yego smysl: Logiko-semanticheskiye problemy [The sentence and its meaning: Logical and semantic problems]. 383 p.

[233] Kagirova V.A. Opredelennyy artikl' v sovremennom vostochnoarmyanskom yazyke: tipologiya i diakhroniya [Definite article in the modern Eastern Armenian language: typology and diachrony]: avtoreferat dis. ... kandidata filologicheskikh nauk [abstract of the dissertation. [...] Cand. phil. sciences]. St. Petersburg, 2013. P. 10.

[234] Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. Pp. 94-99.

[235] The issue of speech generation is the subject of wide discussion not only in linguistics, but also in related disciplines, for example, psychology and psycholinguistics, philosophy, sociology and social anthropology, and is studied, among other things, with the help of modern digital and computer technologies. See, for example, Jespersen O. Filosofiya grammatiki [Philosophy of grammar] / O. Jespersen; transl. from English by V.V. Passek, S.P. Safronova. 2nd ed. Moscow: Editorial URSS, 2002. 408 p.; Pinker S. Language, Cognition, and Human Nature. Selected Articles. Oxford: Oxford University Press, 2013. 392 p., etc.

[236] According to A.A. Kibrik, grammar in general «can be considered a system that controls language choices» (Kibrik A. A. Finitnost' i diskursivnaya funktsiya klauzy (na primere karachayevo-balkarskogo yazyka) [Finiteness and Discourse Function of the Clause (on the

and, above all, on such a mechanism as short-term memory. The principle of this algorithm's operation is as following: if the referent is «highly activated» in the speaker's short-term memory (and, according to the assumption of the speaker, also in the short-term memory of the addressee[237]), then the choice is made in favor of a reduced referential means. If the level of activation of the referent is low, then the speaker is more likely to use the full noun phrase, although this choice will still remain probabilistic[238].

Cognitive and quasi-cognitive models of anaphora have been developed by several authors. In particular, widely known is the research by W. Chafe, who distinguishes three states of information activation in consciousness (constituting the *accessibility hierarchy*): active, semi-active and inactive[239]. Active is what is in the focus of attention at the moment, semi-active (*accessable*) is something that is «on the periphery» of consciousness (for example, it has ceased to be active or connected with what is now in the focus of attention), and information that is neither in focus nor on the periphery of consciousness is considered inactive[240].

Taking the scale of accessibility, reflecting the status of the referent used in the discourse in the mind of the addressee at any given moment, as a basis E. Prince proposed her own *«identifiability scale»*[241]. The status of the referent on this scale correlates with the very nature of the addressee's knowledge of the referent.

(12) E. Prince's Identifiability Scale:

1.   Evoked referents, i.e. mentioned in the discourse, and familiar to the listener (including familiarity from the situational context, for

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Example of the Karachay-Balkar Language)] // Issledovaniya po teorii grammatiki [Studies on the Theory of Grammar]. Moscow, 2008. Iss. 4. P. 163).

[237] Description of this principle can be found, for example, in Chafe W. L. Language and Consciousness. Pp. 129-132.

[238] Kibrik A. A. Finitnost' i diskursivnaya funktsiya klauzy (na primere karachayevo-balkarskogo yazyka) [Finiteness and Discourse Function of the Clause (on the Example of the Karachay-Balkar Language)]. P. 163.

[239] Chafe W. Givenness, contrastiveness, definiteness, subjects, topics and point of view. Pp. 25-55, Chafe W. Discourse, consciousness, and time. The flow and displacement of conscious experience in speaking and writing. Chicago: University of Chicago Press. 1994. 392 p.

[240] Chafe W. Cognitive constraints on information flow. Pp. 21–52.

[241] Prince E. Toward a taxonomy of given-new information. Pp. 223-255.

example, *the painting* - in the meaning of «the picture we are looking at now», even if this referential expression was previously absent in the discourse),

1.   Inferrable referents, i.e. not mentioned in the discourse, which, nevertheless, can be logically inferred from the context (for example, when mentioning a wedding in the discourse, the use of the referent of the bride is quite predictable, since the presence of one single unique bride at the wedding is easily «inferred»),

2.   Unused referents, i.e. not mentioned in the discourse, but about which the listener has an idea (for example, *the sun, Pushkin*),

3.   Brand new referents, not mentioned in the discourse, not familiar to the listener (I bought *a dress*).

The use of English language examples in this case is very revealing, since it allows us to demonstrate the correlation between the degree of identifiability of referents in discourse and grammatical structure of their referential expressions, for instance, the use of a definite article with certain referential expressions. Of all the above examples, only the «new» (as Prince emphasizes, «brand new») referents are coded with an indefinite article.

J. Gundel, N. Hedberg and R. Zacharski (1993) proposed the *Givennes hierarchy*[242], which not only offers the most detailed algorithm for analyzing the cognitive status of referents in discourse, but also options for correlating the status of the referent in this hierarchy and grammatical structure of their referential expressions. We will use this hierarchy to determine the discourse status of the objects in this study.

(13) Givenness hierarchy:

In Focus > Activated > Familiar > Uniquely Identifiable > Referential > Type Identifiable

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[242] Gundel J.K., Hedberg N., Zacharski R. Cognitive Status and the Form of Referring Expressions in Discourse. P. 275.

The Givenness hierarchy (13) reflects the degree to which the referent is present in the memory of interlocutors. The statuses «in focus»[243], «activated», «familiar» are assigned to referents whose image is in memory, and the first two statuses correlate with its presence in short-term memory. The difference between «in focus» and «activated»[244] statuses lies in the area of the referent's accessibility: the referent «in focus» is in the focus of the listener's attention at the current moment of the discourse, while the activated one is out of the focus of attention, but is still «accessible» in the listener's mind[245]. Each of the levels of the hierarchy is characterized by a special type of linguistic expression. For example, the English pronoun *it* usually encodes the referent in focus, activated referents are encoded by demonstrative pronouns (*this, that*) and NPs with the demonstrative pronoun *this* (*this book*). A familiar referent is encoded by NPs with the demonstrative pronoun *that* (*that book*), and for a referent uniquely identifiable in the discourse, the coding using a definite article is most characteristic.

The term «referential» in this hierarchy refers to what M. Haspelmath interprets as the identifiable for the speaker[246], which distinguishes it from definiteness, which, as a rule, is perceived as the identifiability of the referent for the addressee[247]. An example is the use of an NP with the demonstrative pronoun *this* in colloquial English.

(14)   I'm absolutely exhausted. *This dog* (next door) kept me awake all night.

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[243] The word «focus» is used here in the sense of «in the focus of attention» and has nothing to do with the term «focus» as a «rhema».

[244] Compare with active and semi-active states according to the hierarchy of W. Chafe.

[245] Gundel J.K., Hedberg N., Zacharski R. Cognitive Status and the Form of Referring Expressions in Discourse. Pp. 278-280.

[246] Haspelmath M. Indefinite pronouns. Oxford: Oxford University Press. 1997. P. 108.

[247] In some languages, such «indefinite-referential» staus, called «specific» in some English language research, can be a factor in object marking. For example, according to M. Enç, in the Turkish language objects belonging to a subset of objects already known to the speaker or potentially identified by some restorable connection with already familiar objects are marked (Enç M. The semantics of specificity // Linguistic Inquiry. 1991. Vol. 22(1). Pp. 1—25). Objects in the Udmurt (Besermyan), Mari and Erzya-Mordovian languages are also marked in a similar way (Serdobolskaya N.V., Toldova S.Y. Differential Marking of Direct object in Finno-Ugric Languages // Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches. Moscow: Languages of Slavic cultures. 2012. Pp. 59-142).

The least degree of «givenness» in this hierarchy is attributed to referents with the status of «type identifiable». To refer to this type of referent it is enough for the speaker to use an indefinite NP, and to interpret it in the discourse it is enough for the addressee to be familiar with the class of objects that are denoted by this noun. For example,

(15) What are you going to buy her? *A book* is a good gift.

The important point, which is noted by J. Gundel, N. Hedberg and R. Zacharski, is the correlation between givenness and topicality: the referents «in focus», according to the authors, are likely to be topics in subsequent discourse[248]. Topicality, as mentioned above, is one of the factors of DOM, so in 1.4.3 we will consider it in more detail.

1.4.3. Topic and topicality

As mentioned above, topic (the starting point of the statement) and focus (information added to the starting point) consitute a binary opposition that characterizes the information structure of a sentense. In discourse linguistics, topic is most often considered as a pragmatic role in the sentence structure. And following W. Chafe[249], who reinterpreted the categories of definiteness, subject and topic for studying the structures of human consciousness and memory, the role of the sentence in discourse studies is leveled and other units of discourse segmentation are brought to the fore: the intonation unit (for oral discourse), matching in volume with one clause[250], and the proposition[251].

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[248] Gundel J.K., Hedberg N., Zacharski R. Cognitive Status and the Form of Referring Expressions in Discourse. P. 279.

[249] Chafe W. Givenness, contrastiveness, definiteness, subjects, topics and point of view. Pp. 25-55.

[250] Kibrik A.A. Analiz diskursa v kognitivnoy perspective [Analysis of Discourse in Cognitive Perspective]. P. 27; for further information see Kibrik A.A., Podlesskaya V.I. Problema segmentatsii ustnogo diskursa i kognitivnaya sistema govoryashchego [Problem of segmentation of oral discourse and cognitive system of the speaker] // Kognitivnyye issledovaniya: sbornik nauchnykh trudov [Cognitive research: collection of scientific papers] / ed. V.D. Soloviev. Moscow: Institut psikhologii RAN, 2006. Vol. 1. Pp. 138-158.

[251] For more information about the concept of «proposition», see, for example, Gusarenko S.V. Propozitsiya kak komponent aktual'nogo diskursa [Proposition as a component of actual

Many studies on the factors of DOM refer to the object *topicality*. Definitions of topicality vary quite a lot depending on the researchers and the paradigm in which they conduct the study, but they are generally based on the theses stated by T. Givón in 1983.

In particular, T. Givón introduced the concept of *topic continuity*[252], i.e. the predictability of the appearance of a particular referent in the discourse. Moreover, the more active the referent acting as a topic is, the more predictable its appearance, and, therefore, the less linguistic material is required for its encoding. Conversely, if the narration is interrupted, it is more difficult to perceive the topic and the more «coding» material will be required[253]. Accordingly, topicality should be considered as a gradual feature, directly correlated with the discourse characteristics of the referents. To measure topic continuity within the framework of discourse, T. Givón proposed three parameters, which were then successfully applied in many statistical studies:

1. Reference distance,

2. Potential interference,

3. Cataphoric Persistence[254].

«Referential distance», according to T. Givón, measures how far the current referential expression is separated from the previous mention of the same referent,

discourse] // Gumanitarnyye i yuridicheskiye issledovaniya [Humanities and legal research]. 2015. No.4. P.159-164, Kibrik A.A. Propozitsional'naya derivatsiya i atabaskskiye yazyki [Propositional derivation and Athabaskan languages] // Glagol'naya derivatsiya [Verbal derivation] / V.A. Plungyan and S.G. Tatevosov (eds.). Moscow: JaSK. 2008. Pp. 127-148. In our work, to simplify the calculations, we will use the judgment of T. A. van Dyck and V. Kinch that one simple sentence corresponds to one proposition (van Dijk T.A. van, Kintsch W. Strategii ponimaniya svyaznogo teksta [Strategies of discourse comprehension] // Novoye v zarubezhnoy lingvistike. Vyp. XXIII. Kognitivnyye aspekty yazyka [New in foreign linguistics. Iss. XXIII. Cognitive aspects of language]. 1988. Pp.153–211).

[252] Sometimes referred to as «topic accessibility».

[253] Givón T. Topic continuity in discourse, an introduction. P. 18.

[254] The translation of the term into Russian is proposed in the sudy of Russkikh A. Kodirovaniye posessivnosti s terminami rodstva v russkom yazyke kak referentsial'nyy vybor [Coding of possessiveness with terms of kinship in Russian language as a referential choice] // Russkaya filologiya. 30. Sbornik nauchnykh rabot molodykh filologov [Russian Philology. 30. Collection of scientific works of young philologists]. Tartu, 2019. Pp. 230-239.

by counting the number of clauses separating them[255]. The parameter «cataphoric persistence» measures the importance of this referent in *subsequent* discourse by counting the number of clauses «to the right» of the current referential expression coding the referent. The most continuous topic would correspond to the «in focus» referent according to the Givenness hierarchy, described in 1.4.2. «Potential interference» parameter indicates the presence of other «semantically compatible» referents in the immediate vicinity[256]. In fact, it does not measure topicality, but is used as a means of control in situations where, for example, there may be ambiguity of reference[257].

Thus, it can be assumed that the referents with the greatest degree of topicality will be consistently mentioned in the discourse coded by different referential expressions that used within the minimum possible distance, which is an important principle for quantitative analysis in this study. The methodology for calculating the degree of topicality, as well as the Givenness hierarchy, will be used to identify the discourse-pragmatic factors that potentially affect the asymmetric DOM in Modern Hebrew in Chapter 3.

1.4.4. Animacy

In a well-known study published by L. Hjelmslev on animacy it was noted that «the subjective classification [...] rarely rests on the physical properties of the object, more often it is based on the role, function, utility (imaginary or real) of the

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[255] Givón, T. Topic continuity in discourse. P. 13.

[256] Ibid. Pp. 1-41.

[257]This approach of T. Givón formed the basis of the rapidly developing field of Discourse linguistics associated with the problem of choosing a referential means when mentioning a specific referent in discourse. In addition to the linear distance to the nearest antecedent (Givón's «referential distance»), other parameters related to the preceding discourse (e.g., the semantic-syntactic status of the antecedent and episode boundaries) are also used to predict the referential choice, as well as internal properties of the referent (animateness, centrality for a given discourse, etc.). For more details, see, for example, Kibrik A.A. Analiz diskursa v kognitivnoy perspective [Analysis of Discourse in Cognitive Perspective]. avtoreferat dis. ... doktora filologicheskikh nauk [autoreferat of diss. doctor of philology. sciences. Moscow: Institute of Linguistics of the Russian Academy of Sciences. 2003. 90 p.

object»[258]. This idea substantiates the multifaceted nature of the animacy category, and, consequently, its reflection in modern linguistic literature.

In the current literature, at least three levels of «animacy» are presented: 1) biological animacy, i.e. the degree to which an entity is living or non-living according to certain biological criteria; 2) cognitive (otherwise called semantic) animacy, i.e. conceptualization of the entity on the basis of some idea of an «animate» model of behavior, and 3) linguistic (formal) animacy, i.e. grammatical reflection of the cognitive process of classification of animacy[259].

The issue of the relationship between these three levels is widely debated, but it is clear that while biological animacy is binary in nature, cognitive animacy, and therefore linguistic animacy, is not binary, but is represented by some more complex hierarchy. This hierarchy is supposedly based on notions of agenivity and inherently «self-centered» proximity to the speaker/listener[260].

As was stated in section 1.2, degree of animacy perceived by the speaker, does affect grammatical processes, in particular, agreement and case marking of the NP[261].

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[258] Hjelmslev L. O kategoriyakh lichnosti–nelichnosti i odushevlennosti–neodushevlennosti [On the categories of personality-non-personality and animacy-inanimate] // Printsipy tipologicheskogo analiza yazykov razlichnogo stroya [Principles of typological analysis of languages of various systems]. Moscow, 1972. P. 120.

[259] For a detailed discussion see, for example, de Swart P., de Hoop H. Shifting animacy // Theoretical Linguistics. vol. 44, no. 1-2. 2018. Pp. 1-23; Bayanati S., Toivonen, I. Humans, Animals, Things and Animacy. Pp. 156-170; Malchukov A. Animacy shifts and resolution of semantic conflicts: A typological commentary on Shifting animacy by de Swart & de Hoop // Theoretical Linguistics, vol. 44, no. 1-2, 2018, pp. 47-55; Trompenaars Th., Kaluge T.A., Sarabi R., de Swart P. Cognitive animacy and its relation to linguistic animacy: evidence from Japanese and Persian // Language Sciences. 2021. Vol. 86. [Electronic source] URL: https://pure.mpg.de/rest/items/item_3347556_1/component/file_3347557/content (accessed: 10.07.2023).

[260] For more detailed analysis see, for example, Bayanati S., Toivonen, I. Humans, Animals, Things and Animacy. P. 157; Dahl Ö., Fraurud K. Animacy in grammar and discourse // Reference and referent accessibility / T.Fretheim and J.K.Gundel (eds.). Amsterdam: John Benjamins, 1996. Pp. 47-64.

[261] Examples of this can be found many languages, including Russian. For instance, the accusative plural forms of all nouns and the singular masculine accusative of animate nouns match the genitive forms, while the the accusative forms of the inanimate nouns match the nominatives: *Vižu brat-a / lošad'-ey* '(I) see brother / horse', but *Vižu stol* '(I) see table'.

In section 1.2.1, we discussed the animate scale (6) proposed by J. Aissen, which included a three-level classification: human, animate (non-human), and inanimate. In some cases, DOM reflects an even simpler binary model with the opposition «human/non-human», as we see, for example, in the Pechora dialect of the Komi-Zyryan language[262]:

(16) *Me dərəm / dərəm-sə   vur-i.*

я рубашка / рубашка-ACC.3 шить-PRT

'Я сшила рубашку'.

However, there are examples of a more complex system of DOM influenced by the «animacy» parameter. For example, in some Australian languages, only the 1st and 2nd person pronouns are marked with an accusative, but not the 3rd person[263].

Such typological observations, as well as the detailed animacy hierarchy, proposed by M. Silverstein back in 1976[264], led to the expansion of the animacy scale.

(17) Extended Animacy Scale[265]:

Speaker/addressee>3rd pl. pronoun>proper noun with human referent>common noun with human referent>other animate nouns> inanimate noun

«Speaker/addressee» in this scale refer to 1st and 2nd person pronouns (locator / non-locator).

However, the analysis, the results of which will be presented in the third chapter of this study, clearly show that to identify the correlation between the animate NP and asymmetric type DOM in Modern Hebrew, the animation scale

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[262] Serdobolskaya N.V., Toldova S.Yu. Differential marking of direct object in Finno-Ugric languages // Finno-Ugric languages: fragments of grammatical description. Formal and functional approaches. Moscow: Languages of Slavic Cultures, 2012. P. 4.
[263] Comrie B. Language universals and linguistic typology … 264 p.
[264] Silverstein M. Hierarchy of Features and Ergativity. Pp. 112-171.
[265] Foley W. A., Van Valin R. D. Functional Syntax and Universal Grammar. 432 p.

proposed in J. Aissen's study (6) is quite sufficient, and therefore will be the one used in our research.

Conclusions to Chapter 1

In this chapter, we examined the main theoretical approaches and methodological principles on which this study is based. From a typological point of view, subject and object are encoded in various ways, namely, by case markers, predicative agreement, and word order. Moreover, the degree of relevance of these three methods depends on the language. In nominative-accusative languages, and Modern Hebrew in particular, the subject is usually associated with the nominative and the object with the accusative.

Semantic roles describe the relationship between a predicate and its arguments; prototic transitive verbs, in particular, typically choose Agent and Patient. In nominative-accusative languages, there are two main models of encoding the O-participant of the situation (acting in the semantic role of the Patient). The asymmetric type of DOM is characterized by *ACC* vs *Ø* (accusative or zero marker) alternation. This type of alternation is, most often, motivated by individuation of the object parameter and seems to be pragmatic in nature. The symmetric type of DOM, on the other hand, is characterized by the alternation of two different markers, and is motivated by different semantic aspects of transitivity.

Researchers of asymmetric DOM often note that the presence of an accusative marker correlates with the discourse prominence of the object. Such studies, however, measure this parameter only indirectly, on the basis of the correlation between the identifiability of the object and the position of the encoding referential expression on the definiteness scale. The concept of «identifiability», viewed as the main factor of DOM, includes the categories of definiteness and animacy. Definiteness, in turn, is considered not only by the presence / absence of formal definiteness markers, but also from the semantic and pragmatic points of view. Three types of definiteness distinguished by the type of

information available to the speaker and the addressee are discussed, and the connection, but not exact alignment of definiteness and referential status is demonstrated. The studies also list pragmatic role of the referent, acting as a direct object, and the degree of its topicality as factors of DOM. The degree of object individuation and the influence of this factor on the DOM can be more accurately determined by measuring the object's identifiability and accessibility, as well as on the basis of information on the degree of topicality of the referent, derived from the data on the referential distance in the discourse and the degree of its cataphoric persistance.

CHAPTER 2. DEFINITENESS AS A FACTOR OF ASYMMETRIC OBJECT MARKING IN MODERN HEBREW

The traditional approach to cases was developed on the basis of ancient Greek and Latin. Both languages belong to fusional inflecting languages with a characteristic system of case endings, which formed the terminology accepted today: nominative, genetive, dative, accusative. For the Proto-Semitic language, the system of case endings *–u, -i, -a*, corresponding to the nominative, genetive and accusative[266], was also reconstructed. Over time, the three-case inflectional system in the Northwestern Semitic languages was replaced by the DOM system, in which only definite NPs coding objects were marked, while the subject was not marked in any way. In the Biblical Hebrew language, direct object was marked by the marker *ʾet*[267] (traditionally named *nota accusativi*). Thus, despite the fact that morphological case markers are absent not only in Modern Hebrew[268], but also already in Biblical Hebrew texts, the terms «nominative», «genetive», «accusative», «dative» are often preserved in the linguistic literature — both for the Biblical Hebrew and for the subsequent periods[269]. Despite the fact that

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[266] Note that accusative and genetive share markers in the dual and masculine plural forms. This system is observed in the Akkadian and Ugaritic languages, and is also preserved in Classical Arabic. It is also partially preserved in the Ge'ez language, in which the ending of the nominative -u is not present, but -a is preserved (Bossong G. Differential object marking in Romance and beyond // New analyses in Romance linguistics, selected papers from the XVIII Linguistic Symposium on Romance languages 1988 / D. Wanner and D. Kibbee (eds.). Amsterdam/Philadelphia: John Benjamins, 1991. Pp. 145-146).

[267] In the Moabite *ʾt*, in the Phoenician *ʾyt*, in the ancient Aramaic *ʾyt*. In Imperial Aramaic, a second direct object marker was recorded, formed from the preposition *l-* and frequently replacing *ʾyt*, which was subsequently borrowed by Hebrew. Other Semitic languages also used direct object markers: *ana* in Akkadian, *ʾiyyā* in Arabic, and *kiyya* in ge'ez (before pronominal suffixes), etc. (Khan G. Object markers and agreement pronouns in Semitic languages. Pp. 468-500; Rubin A.D. Studies in Semitic grammaticalization. 177 p.; Bekins P. The Use of Differential Object Marking in Northwest Semitic // Kleine Untersuchungen zur Sprache des Alten Testaments und seiner Umwelt 20. 2016. Pp. 3-50; Wilson-Wright A.M. A Reevaluation of the Semitic Direct Object Markers // Hebrew Studies. 2016. Vol. 57. Pp. 7-15, etc.).

[268] Alekseeva M.E. Osnovnyye printsipy ob"yektnogo markirovaniya v sovremennom ivrite: opredelennost' i differentsirovannoye markirovaniye [Basic principles of object marking in Modern Hebrew: certainty and differential marking] // Vestnik Sankt-Peterburgskogo universiteta. Vostokovedeniye i afrikanistika [Vestnik of Saint Petersburg University. Asian and African Studies]. 2010. No. 3. P. 110.

[269] פלוטניק, ז., מלצר-אשר, א., & סילוני, ט. אנאקוזטיביות ומבנה השייכות הדאטיבית שפה ומוח, 16. 2022. 1-19

typically the nominative and the accusative are associated with the grammatical roles of subject and object, respectively, in some languages, including Biblical Hebrew, accusative can be used to denote meanings such as the method, time or place of action. However, as the study of P. Bekins shows, cases of marking with *ʾet* in the Hebrew language are mainly limited to direct objects[270], in most cases encoded by definite NPs.

However, this correlation, i.e. the tendency to overtly mark the direct objects encoded by definite NPs, does not imply a strict alignment between overt accusative marking and definiteness[271]. Various attempts have been made to explain this discrepancy on the basis of Biblical Hebrew. The explanations cited emphatic function of the preposition *ʾet*[272], mistakes made by copyist[273], existence of hybrid constructions, stylistic features of the text[274], etc. More recent studies, starting with the paper written by G. Khan (1984)[275], pointed out a close relationship between object marking and transitivity parameters, in particular, the individuation of the object[276]. P. Beckins, on the basis of the Biblical Hebrew prose corpus analysis, concluded that in Biblical Hebrew, the key factor for the distribution of *ʾet* was the so-called «information status» of the NP. Namely: the higher the referent is located on the information status scale, which measures the discourse-pragmatic charachteristics of the referent (i.e., if it is 1) mentioned in the

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Plotnik Z., Meltzer-Asscher A., Siloni T. Nonaccusativity and possessive dative construction // Language and brain. 2022. No. 16. Pp. 1-19. [Electronic resource] URL: http://www.language-brain.com/journal/docs/Plotnik_Meltzer-Asscher_Siloni_LanguageBrain16_Unaccusativity.pdf (accessed: 10.07.2023).

[270] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. Pp. 17-29.

[271] See, for example, the study of M. Malessa, who calculated that, in the corpus of Biblical Hebrew texts he examined, only 73% of definite NPs acting as objects were overtly marked (Malessa M. Untersuchungen zur verbalen Valenz im biblischen Hebräisch. 248 p.)

[272] Saydon P.P. Meanings and uses of the particle 't // Vetus Testamentum. 1964. Vol. 14. Pp. 192-210.

[273] Albrecht C. 't vor dem Nominativ und be idem Passiv // ZAW 47. 1929. Pp. 274-283.

[274] Wilson A.M. The particle את in Hebrew // Hebraica 6. 1890. Pp. 146.

[275] Khan G. Object markers and agreement pronouns in Semitic languages. Pp. 468-500.

[276] For further details see Garr W.R. Affectedness, aspect, and Biblical Hebrew 'et. Pp. 119-134; Malessa M. Untersuchungen zur verbalen Valenz im biblischen Hebräisch. 248 p.

pretext, 2) refers to a person and 3) occurs in subsequent discourse), the higher the probability of its overt marking is[277].

For Modern Hebrew, at the moment, definite status of the NP is regarded as the only motivation for overt accusative marking: in accordance with grammatical descriptions and a well-known didactic principle, definite NP acting as a direct object should be obligatory marked ʾet, while marking of indefinite objects is prohibited. Thus, in typological studies Modern Hebrew is perceived as an example of a DOM language and which, within the framework of the asymmetric DOM, uses the accusative marker ʾet, encoding the O-participant in the transitive clause differently depending on the definiteness status of the NP that encodes it.

It is important to point out, that in most cases definiteness category is perceived as a binary one, and its interpretation in studies and grammatical description is based on the presence/absence of formal elements: definite articles, proper names and pronominal suffixes.

In this chapter, we will consider the different ways of expressing «definiteness» in Modern Hebrew, as well as the different types of referential expressions that in Modern Hebrew can encode the O-participant in a transitive clause, in order to establish whether the correlation between the presence of formal elements and overt accusative marking in Modern Hebrew is absolute. To obtain objective and statistically sound data, methods of textual quantitative analysis will be applied on the basis of the corpus compiled by the author called Hebrew Objects General Corpus (hereinafter: HOG corpus).

2.1. General principles of asymmetric object marking in Modern Hebrew on the basis of grammatical descriptions

In Modern Hebrew, both direct and indirect objects are used in all registers and text types, and, in terms of word order, direct object is usually placed before

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[277] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition ʾet in Biblical Hebrew. P. 240.

indirect and often follows immediately after the verb[278]. The object is predominantly encoded with the direct object (either overtly coded by the accusative marker *'et* or by the null marker), although a certain very limited list of verbs accept both direct and indirect objects (with the preposition *be-*, usually encoding the locative), without changing the meaning[279]. The latter include, for example, both relatively frequent verbs *baxar* 'to choose'[280], hexzik 'to hold', *tafas* 'to grab, occupy (place)', *hika* 'to beat, hit', as well as much less common *nagax* 'gore', *niqer* 'gouge, peck', *henid* 'move (head)', etc. In terms of this study, this alternation will correspond to the symmetrical model of DOM and, therefore, its features will not be considered. However, we will note that the only known to us study on the *'et / be-* alternation, which is to varying degrees characteristic for verbs of this type, published by R. Halevy in 2008, states that the choice of encoding method in this case is semantically motivated[281]. This notion fully corresponds to the general characteristics of the symmetric DOM described in typological studies (see section 1.3.2) and distinguishes it from the asymmetric DOM studied in this thesis, the principles of which will be outlined below.

As already mentioned, in accordance with the vast majority of studies and grammatical descriptions[282], Modern Hebrew regularly marks the O-participant in

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[278] There are other factors, that can influence the word order in this case, and they are rooted in information structure and the message intent: known information, for example, direct/indirect object realized as a definite NP is typically used first and a more concise referential expression will be closer to the beginning. For more information, see: Glinert L. The Grammar of Modern Hebrew. P. 164-165.

[279] Glinert L. The Grammar of Modern Hebrew. P. 159.

[280] In Modern Hebrew studies, several transliteration systems are used, depending on the purpose of the study and type of data that needs to be recorded. The transliteration system used in this study is one of the most common systems for the simplified transmission of the text of modern colloquial Hebrew and does not have the task of reflecting the phonetic component. See, for example, the use of transliteration in Glinert L. The Grammar of Modern Hebrew. 608 p., Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew or Halevy R. Transitive verbs with non-accusative alternation in Hebrew … Pp. 61-102.

[281] Halevy R. Transitive verbs with non-accusative alternation in Hebrew … Pp. 61-102.

[282] The only work known to us where the widely-accepted principle is questioned is the article by Israeli researchers A. Hacohen, O. Kagan and D. Plaut (2021) on the object marking of the partitive in Modern Hebrew (Hacohen A., Kagan O., Plaut D. Differential Object Marking in Modern Hebrew: Definiteness and partitivity. Pp. 1-34). With experimental means, the authors establish that the «approval level» of overtly marked definite partitive constructions among

the transitive clause with *'et* if the O-participant is encoded by a definite NP, and does not mark all the indefinite ones[283].

(17a) *Dan*   *kana*   *'et*   *ha-sefer.*
       Дан   buy.PST.3SGM   ACC   DEF-book
       'Dan bought the book.'

(17b) *Dan*   *kana*   *sefer.*
       Дан   buy.PST.3SGM   book
       'Dan bought a book.'

(17c) **Dan*   *kana*   *'et*   *sefer.*
       Дан   buy. PST.3SGM   ACC   book.

(17d) **Dan*   *kana*   *ha-sefer.*
       Дан   buy. PST.3SGM   DEF- book.

Examples (17a) and (17b) are grammatical, whereas (17c) and (17d) are rated as non-grammatical by native speakers. Interestingly, according to a study by G. Danon, an example similar to (17c), in which *'et* marks an indefinite NP, in most cases is considered by respondents to be «much worse» than the example (17d), where an object realized by a definite NP is not marked[284].

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participants (native Hebrew speakers), is only 3.5/5, which clearly shows the discrepancy between the generally accepted point of view and the reality. The issue of the partitive accusative marking, including the data of the above mentioned study, will be discussed in more detail in sections 2.3.1-2.3.2 and 3.1.3.

[283] Givón T. Definiteness and referentiality. Pp. 291-330; Glinert L. The Grammar of Modern Hebrew. P. 157; Siloni T. Noun phrases and nominalizations: The syntax of DPs 40. 232 p.; Winter Y. DP Structure and Flexible Semantics // North East Linguistics Society. 2000. Vol. 30. Pp. 709-731; Wintner Sh. Definiteness in the Hebrew Noun Phrase. Pp. 319-363; Danon G. Syntactic Definiteness in the Grammar of Modern Hebrew // Linguistics 39(6). 2001. Pp. 1071–1116; Danon G. The Hebrew Object Marker and Semantic Type // Proceedings of IATL 17 / Falk Y. (ed.). 2002. [Электронный ресурс] URL: http://linguistics.huji.ac.il/IATL/17/Danon.pdf (дата обращения: 10.06.2023); Danon G. Caseless nominals and the projection of DP // Natural Language & Linguistic Theory 24(4). 2006. Pp. 977–1008; Ruigendijk E., Friednmann N. On the relation between structural case, determiners, and verbs in agrammatism … Pp. 948–969, etc.

[284] Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew.

Despite the unanimous opinion regarding the factor that motivates in such examples (namely, the «definiteness of NP»), a separate subject of discussion in the literature is the status of 'et. The opinions of researchers on this issue can be divided into two groups. The prevailing and traditional understanding of 'et is as an obkect or accusative marker[285], but in some works 'et is considered a preposition[286]. These two interpretations are not mutually exclusive. Several studies successfully combine both opinions, calling 'et an «accusative preposition»[287] or a direct object / accusative marker with some characteristics of a preposition[288], or simply use descriptive terms like «lexicalized element»[289]. For the purposes of this paper, however, we will stick to the first opinion and refer to 'et as an accusative marker[290].

Returning to the factors motivating DOM, we will note that the presence of an obvious correlation between the direct object and the definite/indefinite status of the referential expression encoding it, stated in the literature, of course, raises the question of which referential expressions can be considered «definite» or

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[285] See, for example, Givón T. Definiteness and referentiality. Pp. 291-330; Siloni T. Noun phrases and nominalizations: The syntax of DPs. 232 p.; Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483; Alekseeva M.E. Osnovnyye printsipy ob"yektnogo markirovaniya v sovremennom ivrite: opredelennost' i differentsirovannoye markirovaniye [Basic principles of object marking in Modern Hebrew: certainty and differential marking]. P. 111; Janssen B., Meir N., Baker A., Armon-Lotem Sh. On-line comprehension of Russian case cues in monolingual Russian and bilingual Russian-Dutch and Russian-Hebrew children // Proceedings of the 39th annual Boston University conference on language development / Grillo E., Jepson K. (eds.). Somerville, MA: Cascadilla Press, 2015. Pp. 266–278.; Taube M. The usual suspects: Slavic, Yiddish, and the accusative existentials and possessives in Modern Hebrew // Journal of Jewish Languages. 2015. Vol. 3(1–2). Pp. 27–37.

[286] Glinert L. The Grammar of Modern Hebrew. 608 p; Danon G. Syntactic Definiteness in the Grammar of Modern Hebrew. Pp. 1071–1116.

[287] Falk Y.N. Case: Abstract and Morphological // Linguistics. 1991. Vol. 29(2). Pp. 197–230.

[288] Wintner Sh. Definiteness in the Hebrew Noun Phrase. Pp. 319-363; Armon-Lotem S., Avram I. The autonomous contribution of syntax and pragmatics to the acquisition of the Hebrew // UG and External Systems: Language, Brain and Computation / Di Sciullo A.M. (ed.). Amsterdam: John Benjamins, 2005. Pp. 171–184.

[289] Zhakevich P., Kantor B. Modern Hebrew // The Semitic Languages / J. Huehnergard, Pat-El N. (eds.). 2nd edn. London & New York: Routledge, 2019. P. 598.

[290] We will use the terms «direct object marker / accusative marker», since it is important for this study that it acts precisely as an object marker, and not as an indicator of temporal or spatial orientation, as is the case with most units that are traditionally referred to as prepositions.

«indefinite» in Modern Hebrew. To solve this issue, let us consider what ways of indicating deginiteness exist in Modern Hebrew.

The main way to encode definiteness in Hebrew is, as already mentioned, the use of the definite article, *ha-*, in the form of a prefix that is attached to nouns, adjectives, some numerals, etc.[291] There is no explicit indefinite article in Hebrew[292]. Some researches argue that the forms of the numeral «one» *'exad/ 'axat* (or their truncated forms *'had/ 'hat* — in oral speech) can be implemented to express the idea of indefiniteness[293] or specificity[294]. In most cases, indefinite status is indicated by an unmarked NP. Referential expressions encoding the O-participant in the transitive clause, in Hebrew can be: proper names, definite and indefinite NPs (including determinatives and quantifiers), quantifiers and pronouns (demonstrative, interrogative, etc.). Standing apart are object pronouns, which were formed by attaching pronominal suffixes to the grammaticalized morpheme *'ot-*[295], historically dating back to the accusative marker *'et*. Thus, referents encoded using the object pronouns *'oto* (ACC.3SGM), *'ota* (ACC.3SGF), *'oti* (ACC.1SG), etc., are marked obligatory.

In accordance with Sh. Wintner's classification[296], NP, in turn, can include various elements with the fixed word order for each type of structure. In particular, quantifiers (e.g., the quantitative numeral *šloša* («three')), *kol* ('every'), *kama* ('several')), determiners (*'oto* 'the same') occupy a position in front of the head, and in the postposition to the head can be used: NPs defining the head, adjectives

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[291] In the literature on the Semitic languages in general and Hebrew in particular, there has been a discussion about the essence of the definite article for a long time. For more information, see. 1.4.1. of this work. We will consider the definite article as an affix.

[292] Zhakevich P., Kantor B. Modern Hebrew. Pp. 570-610.

[293] Givón T. On the development of the numeral 'one' as an indefinite marker // Theoretical issues in the grammar of Semitic languages (MIT Working Papers in Linguistics 3) / Borer H., Aoun Y. (eds.). Cambridge, MA: MIT, 1981. Pp. 233-255; ‏אורנן, יו. (1964). ביטויי עצם בספרות העברית החדשה. עבודת דוקטורט, האוניברסיטה העברית, ירושלים‎

[294] Ionin T. This is Definitely Specific: Specificity and Definiteness in Article Systems // Natural Language Semantics. 2006. Vol. 14(2). Pp. 175–234.

[295] Coffin E.A, Bolozky Sh. A Reference Grammar of Modern Hebrew. Cambridge: Cambridge University Press, 2005. Pp. 168-170.

[296] Wintner Sh. Definiteness in the Hebrew Noun Phrase. P. 322.

and ordinal numbers, demonstrative pronouns, possessives (of various types: for example, *šeli* ('my'), *šel dan* ('of Dan')), prepositional groups and relative clauses[297]. Depending on the structure, the definite NP is marked by the definite article prefixed either to the head noun, or to the dependent noun, or to both the head and the dependent.

Another way to mark NP definiteness is adding a possessive suffix to an otherwise unmarked noun form. Such an NP will be considered definite. Proper names are also considered definite. In accordance with Hebrew grammar, NPs marked by the definite article (ha-), possessive suffix or proper name in their structure will be obligatory marked by *'et* if acting as a direct object.

The *'et* marker may be omitted before a definite NP in some types of texts that require brevity, which L. Glinert calls the «telegraphic style», for example, in press headlines, especially if the direct object is not used immediately after the marker[298].

Thus, grammatical descriptions form the following basic principles of asymmetric object marking of the O-participant in the transitive clause.

(18) Basic principles of direct object marking in Modern Hebrew

1.   Objects encoded with the NP with the definite article are marked,

2.   Objects encoded by NP with a possessive suffix are marked,

3.   Objects encoded with a proper name are marked,

4.   Objects encoded by NP without above-mentioned indicators of definiteness, as well as definite NP in texts that require brevity, are not marked.

However, upon closer examination, a number **of contradictory examples** are found where the principles described above (18) are insufficient.

For example, if direct object is coded by the complex NP with conjunction that has a definite status, the following two options are possible:

(19a)   *kaniti   'et   ha-xulca   ve   'et   ha-mixnasayim*

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[297] Ibid.
[298] Glinert L. The Grammar of Modern Hebrew. P. 158.

buy.1SG   ACC   DEF-shirt   и   ACC   DEF-trousers

'I bought (these) shirt and trousers'.

(19b)   *kaniti*   *'et*   *ha-xulca*   *ve*   *ha-mixnasayim.*

         buy.1SG   ACC   DEF-shirt   and   DEF-trousers

An explanation of this duality is offered by T. Givón[299] and Y. Winter[300]. They note that the speaker's choice of whether to repeat *'et* is motivated by the difference in the interpretation of examples (19a) and (19b). The repetition of the marker before each NP (19a) corresponds to the distributive interpretation, and if *'et* is used only before the first NP (19b), then a collective reading is more natural.

Distributivity/collectivity is an important referential opposition linked to the type of object being marked[301]. The issue of referential status of Modern Hebrew NPs is rarely addressed by reserachers, and its correlation with the DOM phenomenon, as far as we know, has not been researched at the moment. Moreover, despite the fact that «definiteness» is almost unanimously recognized as the only parameter of Modern Hebrew DOM, researchers do not consider definiteness in terms of referentiality. Mainly because the vast majority of scientific research on Modern Hebrew syntax is done within the framework of formal syntax, which leaves the correlation between speech and reality outside the scope of discussion. This study is intended, in particular, to fill this gap[302].

Deviations from the generally accepted basic principles of object marking observed in real speech acts are either ignored by reserachers or explained by the non-absolute correspondence of grammatical definiteness (i.e., coding with

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[299] Givón T. Syntax: A functional-typological introduction. Vol. II. Amsterdam, 1990. P. 18.

[300] Winter Y. DP Structure and Flexible Semantics. Pp. 709-731.

[301] For more detailes see Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. 293 p.; Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. 496 p.

[302] For in depth analysis of the correlation between referential status and asymmetric DOM in Modern Hebrew, see Chapter 3.

appropriate markers) and semantic definiteness of objects[303]. First of all, we are talking about proper names, which, as a rule, do not have definiteness markers[304], but in the role of a direct object are obligatory marked. But much rarer phenomenon characteristic of Hebrew is the use of demonstrative pronouns in NPs that may (22a) or may not (22b) be encoded with a definite article, but in both cases will be semantically perceived as a definite specific NP:

(22a) *ha-šulxan*   *ha-ze*

DEF-table   DEF-this

'this table'

(22b) *šulxan*   *ze*

table   this

'this table'

These noun phrases are interpreted as synonymous, and according to existing studies, the referential choice between them is either not motivated[305] or motivated by the speech register (NP without the definite article «is reflective of a formal register»[306]). However, their marking as objetcs will be fundamentally different:

(23a) *ra'iti*   *'et*   *ha-šulxan*   *ha-ze*

видеть.PST.1SG   ACC   DEF-table   DEF-этот

'I saw this table'.

(23b) *ra'iti*   *šulxan*   *ze*

видеть.PST.1SG   стол   этот

'I saw this table'.

This phenomenon is not explained in any of the studies known to us.

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[303] Wintner Sh. Definiteness in the Hebrew Noun Phrase. P. 324; Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew.

[304] See section 2.3.1 below for an example of an exception.

[305] Wintner Sh. Definiteness in the Hebrew Noun Phrase. P. 324.

[306] See, for example, Zhakevich P., Kantor B. Modern Hebrew. P. 597.

Also, grammatical descriptions and linguistic studies do not in any way explain DOM of lexical units belonging to the same part of speech and formally not having any differences in regards to the «definiteness / indefiniteness» parameter. Compare, for example, the object marking of the interrogative pronouns *mi* 'who' and *ma* 'what', the first of which is obligatory marked with the accusative marker (24a), and the second prohinits object marking (24b):

(24a) *'et*   *mi*   *'ata*   *ra'ita?*

ACC   who   you.MSG   see.PST.2MSG

'Whom did you see?'

(24b) *ma*   *'ata*   *ra'ita?*

what   you.MSG   see.PST.2MSG

'What did you see?'

The question of the referential status of such pronouns is not trivial[307]. However, in this case, we will only state that from a cognitive-semantic point of view, they are both indefinite, since the speaker does not know which referent he is talking about. And, nevertheless, acting as an object, marking one of them is obligatory, while marking the other — prohibited. And this phenomenon is not explained by researchers.

There is also no explanation for the optional object marking of other semantically indefinite pronouns, for example, *mišehu* 'someone', *kol 'exad* 'everyone', *af 'exad* 'nobody', etc. [308]

Taking into account all of the above, including the complex system and structure of Modern Hebrew referential expressions, the numerous restrictions on the use of the definite article and other definiteness markers, as well as several examples of inconsistent object marking, we will consider all the above-mentioned

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[307] For more information, see, for example, Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. 293 p.
[308] Glinert L. The Grammar of Modern Hebrew. P. 19.

types of referential expressions that can encode the O-participant of a situation in a transitive clause, from the point of view of their status on the definiteness scale in more detail. And also, with the help of the corpus data collected by the author, we will analyze the DOM features for each type, based specifically on the «definiteness» parameter.

2.2. Description of the corpus and methodology

In accordance with the purpose, objectives and methodology of the study set in the introduction, conclusions about the factors of asymmetric DOM in Modern Hebrew will be made based on the statistical data analysis. Therefore, the author formed 2 research corpora designed for different purposes with a total volume of about 101 000 words. Both corpora were annotated according to the main relevant parameters.

The first research corpus, called the Hebrew Objects General Corpus (HOG corpus), with a volume of about 52 000 words, was populated with randomly selected contexts from the online Modern Hebrew corpus Web 2021 (heTenTen21)[309] hosted on SketchEngine (https://www.sketchengine.eu/). All the selected contexts included transitive clauses with the O-participant. The main purposes of this corpus were to form a general overview of the accusative structures in Modern Hebrew, highlighting the main types of marked and unmarked objects, to demonstrate the correlation between direct object marking and the definiteness of the referential expression coding the O-participant, as well as to record cases where object marking within the same type of referential expressions is optional. To determine the features of transitive clauses, the N. Stern's classification of transitive verbs was used[310].

Altogether the HOG corpus is populated with 1313 transitive clauses with two participants. However, many types of referential expressions that exhibit optional marking, due to their relatively low frequency in speech, were observed as

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[309] heTenTen21 corpus [Electronic source].
[310] שטרן נ. פועלי "את" בעברית הישראלית \\ בלשנות עברית חפ"שית. 17. 1979. עמ' 28-57 Stern N. The 'et Verbs in Israeli Hebrew // Hebrew Computational Linguistics. 1979. No. 15. Pp. 28-57.

single examples and, therefore, could not be considered sufficient data for objective statistical analysis. Therefore, a second research corpus, the Hebrew Objects Targeted Corpus (HOT corpus), was formed. HOT corpus amounts to about 49 000 words, and is populated with 1205 two-participant transitive clauses selected at random from the heTenTen21 corpus. Unlike the HOG corpus, the HOT corpus includes only contexts that match the strictly specified parameters, i.e. they include those types of referential expressions coding the O-participant for which optional object marking was observed in the HOG corpus. In both corpora, sources were manually sorted, and contexts that did not meet the objectives of the study were removed[311].

The research corpora were manually annotated according to the following parameters: presence/absence of the accusative marker *'et*, type of referential expression[312], animate/inanimate, degree of identification according to the E. Prince's scale (12) and givenness according to the scale of J. Gundel, N. Hedberg and R. Zacharski (13), referential status, word order, presence/absence of negation in the clause, realis/irrealis, information structure (topic/focus) and speech register (formal/colloquial). In total, the corpora were annotated according to 11 parameters. Within the framework of the study, animate objects denoted primarily people and sometimes — animals[313]. The rest of the objects were marked as inanimate[314]. The annotation of parameters related to the referent information status was based on the author's interpretation of the contexts under consideration. In particular, the degree of accessibility and identifiability of the referent in the discourse was determined using the context that was presented in the corpus

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[311] In particular, contexts quoting or referencing religious texts from different periods of creation were manually removed in order to avoid possible contamination with contexts that are not related to modern language.

[312] The selected types will be described in more detail later in Chapter 2 and in Chapter 3.

[313] The mention of animals in the analyzed contexts was extremely rare, but when they were mentioned, the context of the statement implied the animate nature of the object (in particular, human qualities of character were attributed).

[314] Despite the availability of the more detailed classifications described in 1.4.4, their use was deemed unnecessary, since triepartie (binary, if we consider extremely rare examples of referents «animate (non-human)» to be animate as well) turned out to be quite sufficient for the purposes of this study.

(usually 2-4 sentences «to the right»[315] of the referential expression coding direct object). This context is sufficient for the purposes of this study. The maximum reference distance that may be relevant for estimating topicality has been determined by the author on the basis of the following observations. T. Givón originally set this threshold at 20 clauses[316], but at the moment there is a tendency in the literature to set it at the level of ten or even three clauses. Following the empirical evidence, cited by T. Givón, that the relevant differences appear between distances 1, 2, 3 and > 3 clauses[317], we established these as the starting point of the analysis. More precisely, since most referential expressions have a referential distance of either 0-1, 2-3 or greater than 3 clauses[318], we annotated the data based on three initial categories: minimum distance (0-1), short distance (2-3) and large distance (> 3). Thus, the absence of referential expressions coding certain object in the previous context (as we have mentioned, it is on average 2-4 sentences, or about 3-6 clauses in the corpora) allows us to define the referential distance as «large».

The most frequent verbs in both corpora are the verb '*asa*[319] 'do' (70 occurrences), change of possession verb *kibel* 'receive' (53 occurrences), and the verb of unintentional visual perception *ra'a* 'see' (47 occurrences). Also, the verbs of movement (non-volitional movement, where the source is the subject) turned out to be predictably frequent, for example, *sam* 'put' and *hevi* 'bring', possessor change verbs (*natan* 'give', *lakax* 'take'), display/demonstration verbs, e.g., *hecig* 'show' and change of state verbs, in particular identified on the basis of the goal seme, e.g., *patax* 'open' or *xasaf* 'expose/reveal'.

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[315] As shown in 1.4.3., the referential distance in European languages is calculated from the context «to the left» of the referential expression, but since the direction of the text in Hebrew is opposite to the traditional European «left to right», the previous context for Hebrew is the «right» context.

[316] *Givón T.* Topic continuity in discourse. Pp. 1-41.

[317] Givón T. The Grammar of Referential Coherence as Mental Processing Instructions // Linguistics. 30. 1992. Pp. 5-56.

[318] Ibid. P. 20.

[319] The verb '*asa* is polysemantic and is part of a large number of phraseological units, but at this stage only its standard and most frequent meaning is given.

Transitive clauses, which include verbs that allow the encoding of the O-participant, using a prepositional phrase (i.e., implement both asymmetric and symmetric object marking[320], were excluded from the study.

2.3. Object marking and definiteness scale

As mentioned in section 2.1, definiteness in Hebrew has traditionally been regarded as a binary category. Definite NPs are coded by proper nouns or genitive chains that include other definite NPs (see section 2.3.1.), and are also formed by adding definite article or pronominal suffix, while those that lack all of these elements are considered indefinite. However, in functional-typological studies, as discussed in Chapter 1, it has been proposed that the category of definiteness is not binary, is actually gradual, in accordance with the definiteness scale (cited as 5 above)[321]:

(5) Definiteness scale:

Pronoun > Proper name > Definite NP > Indefinite specific NP > Non-specific NP

It has already been said in section 1.2.1 that this hierarchy reflects an approximate correlation between the choice of a referential expression by the speaker and the assumed degree of identifiability of the referent in the discourse for the addressee. However, the data from many DOM languages, including the Biblical Hebrew language[322], demonstrated that, in general, the principles of DOM correlate with the status of the referential expression on the definiteness scale.

In this section, based on the corpus data we have collected, we will study how the formal characteristics of various types of definite and indefinite referential expressions coding a direct object correlate with the way they are marked in Modern Hebrew.

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[320] See sections 1.3 and 2.1 for details.
[321] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483.
[322] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition ʾet in Biblical Hebrew. P. 113.

2.3.1. Definite noun phrases

In this section, we will review the elements that indicate a definite status of the NP, that traditionally are considered a trigger for the use of the object marker *'et,* and analyze the correlation between their presense in the NP structure and the way this NP is marked when coding a direct object.

Absolute forms and possessive suffixes

The definite article in Modern Hebrew, as mentioned in 2.1, can be prefixed to common nouns, to proper nouns in some cases[323], to adjectives, to ordinal and quantitative numerals, to demonstratives, and to the quantifier *kol,* i.e. *ha-kol* denoting 'everything'. Let us note, that definite NPs in Modern Hebrew in most cases are realized as «polydefinites»[324], i.e. constructions in which the indicators of definiteness (in Hebrew - the definite article) are repeated for each element of the NP[325]. The principles of prefixing a definite article to a noun can be demonstrated by the following examples:

(25)   *šulxan ('exad)*   *ha-šulxan*

       table   one   DEF-table

       '(a/one) table'   'the-table'

(26a)   *šulxan gadol ('exad)*   *ha-šulxan ha-gadol*

       table   big   (one)   DEF-table DEF-big

       'big table'   '(the) big table'

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[323] For example, the article can be added to surnames in the plural form to refer to all people belonging to the same family (e.g., *ha-poterim* 'the Potters'), or to the names of holidays to contrast the name of the annual holiday with a specific date in a particular year: *biliti 'et ha-pesax šam.* 'I spent (this) Passover there.'

[324] The term «polydefinites», i.e. constructions in which definiteness marker is repeated for each member of the construction are opposed to «monadic definites», or «monadics», with a single definiteness marker for all the NP elements (for example, *the red bike*). In addition to the Semitic languages, polydefinites are also used in the Scandinavian and Baltic languages. For more information on polydefinites and the principles of NP construction, see, for example, Kolliakou D. Monadic definites and polydefinites: their form, meaning and use // Journal of Linguistics, 40. 2004. Pp. 263-323; Ritter E. Two functional categories in noun phrases: evidence from Modern Hebrew // Perspectives on phrase structure: heads and licensing (Syntax and Semantics 25), ed. By Rothstein, S. D. New York: Academic Press. 1991. Pp. 37-62; Wintner Sh. Definiteness in the Hebrew Noun Phrase // Journal of Linguistics 36(2). 2000. Pp. 319-363.

[325] Wintner Sh. Definiteness in the Hebrew Noun Phrase. P. 323.

(26b)	* *šulxan ha-gadol*	**ha-šulxan gadol*
	table DEF-big	DEF-table big
(27a)	*šulxan šeni*	*ha- šulxan ha-šeni*
	table second	DEF-table DEF- second
	'second table'	'(the) second table'
(27b)	* *šulxan ha-šeni*	**ha-šulxan šeni*
	table DEF- second	DEF-table second
(28a)	*šulxan ze*	*ha-šulxan ha-ze*
	table this	DEF-table DEF-this
	'this table'	'this table'
(28b)	* *šulxan ha-ze*	**ha-šulxan ze*
	table DEF-this	DEF-table this

Examples (25) demonstrate the NP prefixed and not prefixed by the article, consisting only of the head noun. In (26a) the noun is modified by an adjective, and (26b) shows an example of non-grammatical NP, violating the principle of polydefinites' construction, i.e. the the dependent does not agree in definiteness with the head noun. Examples (27a-27b) and (28a-28b) are also grammatically correct and incorrect NP modified by an ordinal numeral and demonstrative pronoun[326], respectively.

Another way of expressing definiteness in Modern Hebrew is adding a possessive suffix, e.g., *šulxan-o* (table-POSS.3MSG) 'his table'[327]. Such pronominal suffixes mark the gender, number and face of the possesser. As well as the definite article, suffixes are always attached only to the indefinite form of the

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[326] Formally, the demonstrative pronouns, to which *ze* 'this' belongs, are determiners and will be discussed below, however, in this case, examples (28a) and (28b) demonstrate the principle of polydefinites' construction common to different NP structures.

[327] Formally, forms with possessive suffixes are closer to genetive constructions, because construct forms are used (about construct state forms (CS) see below), however, the logic of the study, based on statistical data on their object marking, makes their description in this section more comprehensive.

noun, thereby changing the status of the NP to «definite»[328]. The principle of polydefinites' construction in this case is also applied, but other elements of the NP have to be marked by a definite article (29, 30).

(29) *šulxan-o*   *ha-gadol*

      table-POSS.3MSG   DEF- big

      'his big table'

(30) *šulxan-o*   *ha-ze*

      table-POSS.3MSG   DEF-this

      'this big table'

Pronominal suffixes can also be attached to some quantifiers (for example, *rov* 'majority' — *rub-o* 'most of them', *kol* 'all' — *kul-am* 'all (of) them' or *šney* 'two' — *šney-nu* 'two (of) us'), forming a definite NP. However, when a suffix is attached not directly to a quantifier, but form a preposition phrase (for example, *šloša me-hem* 'three of them'), such a phrase is usually perceived as an indefinite one.

If the O-participant in the transitive clause is encoded by NPs headed by noun with an attached definite article or possessive suffix, such NPs should, according to grammatical rules, be marked with the accusative marker *'et*. This priniple has been confirmed by the HOG corpus data: NPs consisting only of a noun prefixed by a definite article are marked in 100% of contexts (286/286), as well as more complex NP, with an attached article: NP with demonstratives — 8/8, and with an ordinal numeral — 1/1. Statistics are also consistent in relation to NPs with a possessive suffix: it is also obligatorily marked in the HOG corpus (60/60).

Genetive constructs with construct forms

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[328] In some languages, the use of NPs with certain possessive suffixes, quantifiers, or modifiers may trigger a certain way of object marking. For example, in Hungarian, marking an object coded by a noun with possessive 1st or 2nd-person suffixes is optional (Sinnemäki K. A typological perspective on Differential Object Marking. Pp. 281–313). In Hebrew, direct objects coded by NPs with possessive pronominal suffixes are obligatory marked, regardless of the characteristics of the attached suffix.

In Hebrew, as well as in other Semitic languages, a noun can be marked as definite not only by a definite article or a possessive suffix, but also by virtue of the last element of the genitive construction being marked as definite[329]. This phenomenon is well known in the typological literature under the name «Definiteness Spreading»[330]. This type of constructs is called «genetive construction», or sometimes «attributive syntagma». Typical examples of attributive syntagmas in Russian, for example, are *knig-a student-a* 'student's book' (genitive marks the dependent) and *moy/tvoy/naš dom* 'my/your/our house' (a noun and possessive pronoun)[331]. Traditional term for Semitic languages is «construct state». Typologically, there are three ways of marking this kind of construction, two of which are recorded in Modern Hebrew.

The first one is the head marking (izafet construction in the Turkic languages), the second is the marking of both elements (construct state in Classical Arabic[332]), and the third is the use of a special function word (for example,

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[329] Zhakevich P., Kantor B. Modern Hebrew. P. 597.

[330] More about see Borer H. Deconstructing the construct // Beyond Principles and Parameters / Johnson K., Roberts I. Kluwer (eds.). Dordrecht. 1999. Pp. 43–89; Ritter E. Two functional categories in noun phrases: evidence from Modern Hebrew // Perspectives on phrase structure: heads and licensing (Syntax and Semantics 25), ed. By Rothstein, S. D. New York: Academic Press. 1991. Pp. 37-62; Siloni T. Construct states at the PF interface // Linguistic Variation Yearbook. Vol. 1. / Pica P., Rooryck J. (eds.). John Benjamins, Amsterdam, 2001. Pp. 229–266; Danon G. Definiteness spreading in the Hebrew construct state // Lingua. 2008. Vol. 118(7). Pp. 872-906, etc.

[331] For more information about attributive syntagmas, see, for example, Kibrik A.E., Brykina M.M., Leontiev A.P., Khitrov A.N. Russkiye posessivnyye konstruktsii v svete korpusno-statisticheskogo issledovaniya [Russian possessive constructions in the light of corpus-statistical research] // Voprosy yazykoznaniya [Questions of Linguistics]. 2006. No. 1. Pp. 16-45.

[332] For more information on the syntax of Classical Arabic and its modern literary variant, see, for example, Khrakovsky V.S. Ocherki po obshchemu i arabskomu sintaksisu [Essays on general and Arabic syntax] / Academy of Sciences of the USSR. Institute of Linguistics. Moscow: Nauka, 1973. 289 p., Bernikova O.A., Redkin O.I. Komparativnyy analiz naiboleye chastotnykh glagolov i ikh proizvodnykh v tekste Korana i sovremennom arabskom yazyke [Comparative analysis of the most frequent verbs and their derivatives in the text of the Qur'an and the modern Arabic language] // Vestnik Sankt-Peterburgskogo universiteta. Vostokovedeniye i afrikanistika [Vestnik of Saint Petersburg University. Asian and African Studies]. 14 (4). 2022. Pp. 648-666, and others. In Arabic dialects, unlike the literary language, both the head and the dependent are not marked. An alternative for expressing attributive relationships is the use of special function words (Aoun J.E., Benmamoun E., Choueiri L. The Syntax of Arabic. Cambridge University Press, 2010. 258 p., Brustad K. The Syntax of Spoken Arabic: A Comparative Study of Moroccan, Egyptian, Syrian and Kuwaiti Dialects. Georgetown University Press, 2000. 464 p.),

preposition *of* in English)[333]. Modern Hebrew use the first and the third methods, as well as a unique mixture of the first and the third, in which the attributive relationship is expressed, in fact, twice – by head marking and the preposition.

The first method is represented in Hebrew by the construction of the construct state typical of the Semitic languages *(*Latin: *Status constructus*[334]*)*. Unlike literary Arabic, where both elements of the construction are marked, in Hebrew only the head noun is marked. The head of the construct state in Hebrew is a noun in a «construct» form[335], and the dependent, typically, is a noun in an unmarked, «absolute» form. The construct form can be derived from or coincide with the absolute form of a common noun. Construct state is, in general, unproductive in spoken Hebrew[336], but is common in writing. Such constructions, typically, convey belonging, including possession of objects and connection between people, but can represent a separate lexical unit (for example, *beit sefer* (house.GEN book) 'school') or express more complex semantic relations (material, unit of measurement, characteristic of an object, etc.)[337].

Strictly speaking, construct forms exist not only for nouns, but also for most adjectives and some numerals. For example[338]:

(31) **Absolute** sefer sfarim hulca šloša šaloš gadol gdola
     form

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i.e. in fact, the Arabic literary language and Arabic dialects implement fundamentally different structures for attributive syntagmas.

[333] Kibrik A.E., Brykina M.M., Leontiev A.P., Khitrov A.N. Russkiye posessivnyye konstruktsii v svete korpusno-statisticheskogo issledovaniya [Russian possessive constructions in the light of corpus-statistical research]. P. 16.

[334] Very often, both in Russian and foreign literature, the entire construction, consisting of (most typically) two nouns, is called status constructus (the "construct state") although initially the "construct state" is a special form of the head noun. In our work, we prefer to distinguish between the concepts of "construct forn" and "construct state", in particular, to avoid ambiguity when discussing the status of nouns and NPs on the definiteness parameter.

[335] In the glossing «GEN».

[336] Borochovsky Bar-Aba E. Towards a Description of Spoken Hebrew // Hebrew Studies. National Association of Professors of Hebrew (NAPH). 2005. Vol. 46. Pp. 145–67.

[337] For more information, see, for example, Glinert L. The Grammar of Modern Hebrew. Pp. 24-49.

[338] Examples are given in Wintner Sh. Definiteness in the Hebrew Noun Phrase. P. 325.

Costruct form	sefer	sifrey	hulcat	šlošet	šloš	gdol	gdolat
	book	*books*	*shirt*	*three.M*	*three.F*	*big.M*	*big.F*

Thus, in Hebrew there are four types of constructions [339] that formally include construct forms:

(32a) noun + noun / noun group with a dependent word (*xavrey ha-na'ara ha-zot* 'friends of this girl' (def.+)),

(32b) quantifier + noun (*šlošet ha-zkenim* 'three old men' (def.+)),

(32c) adjective + noun (*ha-iš kcar ha-se'ar* 'short-haired man' (def.+) or *sfalim mle'ey mayim karim* 'cups full of cold water' (indef.+)),

(32d) participle + noun (*'itonim rodfey sensaciyot* 'newspapers in pursuit of sensations' (indef.+)).

Of these, the first two types (32a-32b) can act as a direct object, while the last two (32c-32d) syntactically perform attributive and predicative functions.

The definiteness status of such constructions depends on the presence/absence of a definiteness marker, which, depending on the type of construction, is obligatory, optional or prohibited. Type (32a) is most frequently used in the formal register and very rarely observed in the spoken language (with the exception of stable lexical units). It is necessary to note that the head noun is, as a rule, not marked by the definite article[340], and the definite/indefinite status of the entire construction depends on the definiteness status of the noun that modifies the head. For example:

(33a) *kaniti*   *'et*   *ugat*   *ha-šokolad*

        buy.PST.1SG   ACC   cake.GEN   DEF-chocolate

        'I bought (this) chocolate cake'.

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[339] Examples are based on Glinert L. The Grammar of Modern Hebrew. P. 25.
[340] For exceptions to this principle, see below.

(33b) *kaniti*   *ugat*   *šokolad*

       buy.PST.1SG   cake.GEN   chocolate

       'I bought a chocolate cake'.

(33c) **kaniti*   *'et*   *ugat*   *šokolad*

        buy.PST.1SG   ACC   cake.GEN   chocolate

In examples (32a) and (32b), the definiteness marker of the dependent is the definite article, and the construct state is considered definite. The entire NP will also have a definite status if the dependent is expressed by a proper name or a noun with a possessive suffix.

Note also that for stable lexical units, such as *beit sefer* 'school' or *sefer limud* 'textbook', in recent years there is a tendency in colloquial Hebrew to attach the article to the head noun, i.e. the entire construction: *ha-beit sefer* or *ha-sefer limud* instead of grammatically correct *beit ha-sefer* and *sefer ha-limud*[341].

Construct states using a quantifier require the obligatory use of the article with the noun *(šlošet ha-zkenim* '(these) three old men' / 'the three old men', although there is also an indefinite variant, but it does not use construct forms *(šloša zkenim* 'three old men'. Note that in this type of construction, as well as the one mentioned above, the more and more cases using the non-grammatical variant with the article attached to the quantifier are observed in colloquial Hebrew, for example[342]:

(34) *taxzir*   *li*   *'et*   *ha-šloša*   *škalim*

     return.2MSG   to me   ACC   DEF-three   shekel.PL

     še-   *natati*   *lexa*

     which   give.PST.1SG   to you

     'Give me back (those) three shekels that I gave you.'

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[341] Wintner Sh. Definiteness in the Hebrew Noun Phrase. P. 327.
[342] Example of Sh. Wintner (Wintner Sh. Definiteness in the Hebrew Noun Phrase. Pp. 332-333).

Constructions of type (32c) and especially (32d) are not used in colloquial Hebrew. In colloquial Hebrew, there is a limited number of constructions such as «adjective + noun», usually used to describe body parts, clothing, physical and emotional state of a person, inherent traits (*rexav-ktefayim* 'broad-shouldered', *arox tvax* 'long-term', etc.), including commonly used idioms (*kcar-reiya* 'short-sighted', *rav-hašpaʻa* 'influential', etc.). In a definite NP modified by these types of constructions, the definite article is attached: in the formal register - to the nominal part of the construction (for example, *ha-iš rav-ha-hašpaʻa* 'this influential man'), in colloquial Hebrew — either to the nominal part of the construction, or to the modifier *(ha-iš ha-rav-hašpaʻa* 'this influential man'[343]. The latter variant is not grammatical, but as well as for idioms such as «noun + noun» and «quantifier + noun», it is found in colloquial Hebrew with increasing frequency.

Construct states of the type «participle + noun» are only used in the formal register, and are extremely rare, most often, being replaced by relative clauses.

Thus, the first genitive construction type that uses head marking, i.e. the 'construct state', allows you to create several types of constructions that are different in semantics and structure, two of which can act as a direct object and be marked with *'et* provided that the dependent element attaches a definite article (or other definiteness markers). The position of the definite article in such phrases is grammatically regulated, but may not be observed in colloquial Hebrew.

Based on corpus data, as well as studying research done on the construct state object marking, we come to the following conclusions[344]. First, in contrast to the NPs with absolute forms and possessive suffuxes discussed above, genitive constructions of the construct state type even formally in a definite status

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[343] Glinert L. The Grammar of Modern Hebrew. P. 46.

[344] The only example of a specific name group with a conjugate state form that does not correspond to the name+name structure is recorded in the HOG corpus for IG with a quantifier in the form of a conjugate state. And although a single example cannot be the basis for concluding that the marking of this type of IG is obligatory (marked 1/1), it is also not a reason to believe the opposite.

demonstrate some degree of optional object marking (96/97 in the HOG corpus). And second, the explanation of this phenomenon may not lie in the plane of the NP's formal structure, since it is quite consistant.

The second conclusion is indirectly confirmed by the fact that there are references to the «discrepancy» between grammatical and semantic definiteness of the construct state in the literature[345], and this fact in itself raises questions and requires close attention. G. Danon, in particular, gives the following examples[346].

(35) *'oved*   *ha-bniya*   *šavar*   *'et*   *ha-xalon.*
      worker.GEN   DEF-construction   break.PST.3MSG   ACC   DEF-window
      'Construction worker broke the window'.

(36) *hu*   *lakax*   *'et*   *girzan*   *ha-yad.*
      he   take.PST.3MSG   ACC   axe.GEN   DEF-hand
      'He took a hand axe'.

In example (35) *oved ha-bniya* 'construction worker' in the context of the situation described, according to G. Danon, it is not a definite NP semmantically, but it is grammatically coded as a definite NP. Similarly, in example (36) *girzan ha-yad* 'hand axe' is use describing the situation when a man notices the danger and grabs the first weapon that comes into his hands. NP *girzan ha-yad 'hand axe' is* never mentioned in the text again — neither before nor after, but, nevertheless, it has a definite article attached and in the position of direct object, therefore, is marked by *'et*. To explain the phenomenon of overt object marking of semantically indefinite but formally definite construct state NPs, G. Danon proposes to introduce the concept of «syntactic case»[347]. However, in our opinion, such an explanation is not convincing enough, since it does not explain the rare, but occurring in speech violations of the principle «object marking is obligatory for

[345] Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew.

[346] Danon G. The Hebrew Object Marker and Semantic Type.

[347] Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew; Danon G. The Hebrew Object Marker and Semantic Type.

NPs indicated as definite». As mentioned above, in the HOG corpus we can observe some evidence of optional object marking of formally definite construct states. And in our opinion, by increasing the sample size, in our opinion, we will encounter a proportional increase in the number of cases, to which G. Danon also refers.

We will argue that the difference between marked and unmarked NPs of this kind can be explained not in the term of formal syntax features, but in the terms of *referentiality*. Meaning that if the speaker implies a specific object existing in reality (even if the object is definite only within the framework of the situation and even imaginary, but considered real by the speaker[348]), then it will be overtly marked, while if the reality of the object is not implied at all and a specific referent is not required for the correct interpretation of the statement, such NP will not be marked. The factor of referential status in asymmetric object marking in Modern Hebrew will be discussed in more detail in Chapter 3.

Other genetive constructions

Another way to express genitival relationship in Hebrew is to use the preposition *šel*[349]. In such constructions, definiteness marker (for example, the article) can be used with any element of the construction, the definiteness status of the contruction, however, will be marked only by marking the head.

(37a) *bgadim*   *šel*   *ha-tinok*

        clothes   POSS   DEF-toddler

        'clothes of the toddler'

(37б) *ha-bgadim*   *šel*   *ha-tinok*

        DEF-clothes   POSS   DEF-ребенок

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[348] More on this distinction see Chapter 3.

[349] Despite the fact that the prepositional method is, on average, much more productive in spoken Hebrew, and non-prepositional — in writing, the motivations for referential choice in this case are also: the number of modifiers, the presence of idioms and proper names among them, an indication of a possessor in the form of a possessive suffix, etc. Semantically, this type of genetive constructions conveys either possessive relationships between alements or the relationship between people. For more information, see Glinert L. The Grammar of Modern Hebrew. Pp. 33-34.

'the clothes of the toddler'

The second part of the construction can also be a proper name or a possessive suffix indicating the possesser:

(38)   *ha-bgadim*   *šel-o*

       DEF-clothes   POSS-3MSG

       'his clothes'

Therefore, there is an important difference between the prepositional (using *šel*) and non-prepositional (using the construct form) ways of forming a genetive construction: while the prepositional method allows four potential combinations regarding the NP definiteness (both the head and the dependent can be definite or indefinite and any combinations are theoretically possible, if not common[350]), the non-prepositional method allows only two: either both are definite or non are.

And finally, the third, «mixed» way of expressing genitival relationship, the so-called «double genitive», uses two possession markers (the pronominal suffix with the head and the preposition *šel*). Such construction, therefore, will always be a definite NP.

(39)   *bgad-av*   *šel*   *ha-tinok*

       clothes-POSS.3MSG   POSS   DEF-toddler

       'the clothes of the toddler'

Such constructions are used only in the formal register and are found mainly in written speech.

Thus, the definiteness status of the second and third types of genetive constructions is expressed by a definite article or pronominal suffix marking the head noun[351]. The HOG corpus observes the obligatory object marking of definite constructions of the second type, i.e. marked with *šel* (31/31), however, for the «double genitive» optional object marking is allowed in isolated cases (11/12).

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[350] The fourth option, where the head is definite and the dependent — indefinite, is semantically very unlikely.

[351] It is difficult to use a proper name in such a position based on semantic compatibility.

Noun phrases with determiner

Determiners, which in this study we define as elements that accompany a noun and in various ways define and clarify the range of its reference (see section 1.4.1.) are an important element of Modern Hebrew NPs. In section 1.4.1 we have pointed out that we will distinguish between «determiners» and «quantifiers», since quantifiers in Modern Hebrew, unlike most determiners, can be used independently of the noun and, therefore, can act as direct objects in contrast to most determiners. Thus, we will study NPs with quantifiers as a special type of referential expressions (see below), and also, we will discount a definite article from the determiners, and understand the term narrowly[352].

Depending on the form of the determiner, they together with both definite and indefinite nouns can form semantically definite or indefinite NPs. In most cases, adding an article to a nominal head is a sufficient basis for obligatory object marking. There are several categories of determiners that specify the reference of a noun they modify: demonstrative pronouns (are marked by an article, provided that the noun is marked as well) and the less common determiners *'ecem* (*'ecem ha-maxkšava* 'the thought itself'), *'ikar ('ikar he-arim* 'main cities'), *meytav* and *mivxar* (*mivxar ha-megilot* 'the best scrolls'), *meyrav* (*meyrav ha-to'elet* 'greatest benefit')[353].

However, there are two important exceptions to the basic principles of object marking described in (18). For example, as shown in example (28a), an NP with a demonstrative pronoun, not marked with a definite article (*sefer ze* 'this book'), is semantically definite, but such an NP is not marked if it encodes the O-participant of the situation in a transitive clause.

Let's look at this example in more detail. Determiner *ze* 'this' (3MSG) is a form of a demonstrative pronoun, and like other determiners/demonstrative

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[352] For discussion of determiners and quantifiers in this study see 1.4.1, and for a more detailed research see, for example, Gianollo C., Heusinger K., Napoli M. Reference and Quantification in Nominal Phrases … Pp. 1-28.

[353] Glinert L. The Grammar of Modern Hebrew. Pp.92-97.

pronouns[354] will be used directly after the head noun, agree with it in gender, number and be marked with an article, if the head is definite. However, when an object is realized as an NP of this type without an article attached it prohibits object marking. This is noted, for example, by L. Glinert and Sh. Wintner, but without trying to explain this phenomenon[355].

(40) *ra'iti*   *šulxan*   *ze*

see.PST.1SG   table   this

'I saw this table'.

(41) *ra'iti*   *'et*   *ha-šulxan*   *ha-ze*

see. PST.1SG   ACC   DEF-table   DEF-this

'I saw this table'.

The use of a zero accusative marker in such structures is also confirmed by the data of the HOG corpus. While referential expressions of «noun.def+ demonstrative.def+» structure are marked obligatorily (14/14), referential expressions of «noun.INDEF demonstrative.INDEF» structure strictly prohibit object marking (0/8).

An additional argument in favor of a more complex system of asymmetric object marking in Modern Hebrew is related to the determiner *'oto*. In Mishnaic Hebrew, *'oto* acted as an anaphoric demonstrative pronoun *('oto 'adam* 'that man'), but currently it is interpreted as an indicator of emphatic identification: 'the same one/that one' (*kaniti 'oto maxšev* 'I bought the same computer')[356]. In written formal speech, the original meaning, according to some authors, can also

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[354] In contrast to the demonstratives, which will indicate the referent without naming it and can encode the O-participant of the transitive clause independently of the noun (*ra'iti 'et ze* 'I saw it'), the determiners *ze* (3MSG), *zot* (3FSG), *'ele* (3CP) are used as modifiers, clarifying its range of reference. Therefore, in this case, it is quite appropriate to distinguish between the terms «determiner» and «demonstrative pronoun», in our opinion.

[355] Glinert L. The Grammar of Modern Hebrew. Pp.96-97; Wintner Sh. Definiteness in the Hebrew Noun Phrase. Pp. 319-363.

[356] Halevy R. Modern Hebrew syntax. P. 713; Zhakevich P., Kantor B. Modern Hebrew. Pp. 594, 597.

be observed[357]. This determiner agrees in gender and number with the preceding noun. At the same time, definiteness marking (in this case is only the definite article) is optional. Asymmetric object marking, as far as the available research suggests, is not motivated only by the presence / absence of this marker[358]. R. Halevy, in particular, gives the following examples:

(42) *kaniti*   *'et*   *'oto*   *(ha-)maxšev*

    buy.PST.1SG   ACC   ACC.3MSG   (DEF-)computer

    'I bought (the) same computer.'

(43) *kaniti*   *'oto*   *maxšev*   *kmo* *šel-xa*

    buy.PST.1SG   ACC.3MSG computer   as   POSS-2MSG

    'I bought (the) same computer that you (have).'

Example (43) is typical for use in oral speech[359]. And for none of the contexts (42, 43) the researchers offer an explanation for the choice direct object encoding and its case marking. In the HOG corpus, we observe the obligatory object marking of NPs with the determiner *'oto* (4/4), and a definite article is absent in all the contexts.

Noun phrases with quantifiers

Depending on the researcher's approach to the definitions of «determiner» and «quantifier», both the classification of quantifiers and their division into groups regarding their «definiteness» are built differently in different works[360].

[357] Glinert L. The Grammar of Modern Hebrew. Pp.96-97; Halevy R. Modern Hebrew syntax. P. 713.

[358] Ibid.

[359] Halevy R. Modern Hebrew syntax. P. 713.

[360] For more detailed information, see, for example, Christophersen P. The Articles. A study of their theory and use in English. London: Oxford University Press, 1939. 206 p.; Nikolaeva T.M. Aktsentno-prosodicheskiye sredstva vyrazheniya kategorii opredelennosti-neopredelennosti [Accent-prosodic means of expressing the category of definiteness-indefiniteness] // Kategoriya opredelennosti-neopredelennosti v slavyanskikh i balkanskikh yazykakh [Category of definiteness-indefiniteness in the Slavic and Balkan languages]. Moscow: Nauka, 1979. Pp. 119–175; Usmanov K. Kategoriya opredelennosti-neopredelennosti imeni sushchestvitel'nogo v sovremennom tadzhikskom i angliyskom yazyke [The Category of Definiteness-Indefiniteness of a Noun in Modern Tajik and English]: Autoreferat of dissertation. ... Cand. Philol. Sciences. Dushanbe, 1979. 24 p.; Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian

According to the classification proposed by L. Glinert, quantifiers are divided into two groups in regards to definiteness[361]. Quantifiers indicating a large or small amount (*harbe* 'many', *kama* 'several', *mispar* 'some amount') in Modern Hebrew are mainly used with unmarked nouns and are, therefore, part of the indefinite NPs, which will be considered in section 2.3.2. While the exact number is indicated using cardinal numerals, which, as mentioned earlier, may be part of a definite NP, provided that a construct form is used (*šešet ha-batim* '(these) six houses'). In the HOG corpus, 1 example of this type of determiner with a definite noun was recorded, and this NP was marked by *'et* (1/1).

On the other hand, quantifiers indicating complete or partial affectedness for the most part can be prefixied with an article or used with definite nouns[362]. The latter include: *kol* in the meaning of 'all' (with a plural noun) (45) or 'whole' (with a singular noun) (44), [363] *ha-kol* 'all/everything', *rov / ha-rov* 'majority' (46), *ha-marbit* 'majority', *ha-še'ar/ ha-yeter* 'the rest / others' and *xelek* 'part' (47). Fractions can also express partitive value (*xeci me-ha-studentim* 'half of (the) students'), not quantity (*reva šaa* 'quarter of an hour'), and in this case require the use of a definite NP.

(44)　　*kol*　　*ha-sefer*

　　　　all　　DEF-book

　　　　'the whole book'.

(45)　　*kol*　　*ha-sfarim*

　　　　all　　DEF-books

　　　　'all the books'

(46)　　*rov*　　*ha-sfarim*

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language and extralinguistic reality]. 496 p.; Shirokikh O. A. Problema semanticheskoy klassifikatsii angliyskikh neopredelennykh determinativov [The problem of semantic classification of English undefinite determiners] // Voprosy lingvistiki, pedagogiki i metodiki prepodavaniya inostrannykh yazykov [Questions of linguistics, pedagogy and methods of teaching foreign languages]. Izhevsk: Udmurt University, 2011. Pp. 262-271, and others.

[361] Glinert L. The Grammar of Modern Hebrew. Pp.70-78.

[362] Ibid.

[363] To convey the meaning of 'any' and 'every' only an indefinite NP can follow *kol* (see below).

most   DEF-books

'most (of the) books/ most books'

(47)   *xelek   ha-sfarim*

part   DEF-books

'part of the books'

The quantifiers *rov* and *xelek* can both precede a noun and follow it, but in the latter case they are always preceded by a preposition *be-* 'in/at'.

(48)   *ha-sfarim   retuvim   be-rub-am.*

DEF-books   wet   in-majority-POSS.3MPL

'Most (of) the books are wet.'

(49)   *ha-sfarim   retuvim   be-xelk-am.*

DEF-books   wet   in-part-POSS.3MPL

'Part (of) the books are wet.'

This type of constructon is common for the formal register, and in general is not productive enough, especially for encoding an object. Therefore, predictably, there were no such examples in the HOG corpus.

It is sometimes suggested that many quantifiers preceding an NP (*kol, rov, xelek*) are used in the construct form as well as cardinal numerals[364]. This issue is not particularly relevant for this study, so we will only not that in regards to parameters used to formally distinguish between definite and indefinite construct states, all constructions with quantifiers, followed by definite NPs, should be recognized as definite. NPs are also recognized as definite, if the referent, usually expressed with a noun following the determiner, is encoded using a suffix (*šney-hem* 'two (of) them/these two', *kul-anu* 'all (of) us', *rub-enu* 'most (of) us'). Such

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[364] For more on this and on quantifiers in Hebrew, see Francez I., Goldring K. Quantifiers in Modern Hebrew // Handbook of quantifiers in natural language, Studies in Linguistics and Philosophy. Vol. 90 / E.Keenan and D.Paperno (eds.). Berlin: Springer, 2012. Pp. 347-397.

NPs should be obligatory and overtly marked as objects[365], and this is confirmed by the corpus data (1/1).

Note that some quantifiers, for example, *xelek*[366], can also precede a prepositional phrase (*xelek me-ha-sfarim* 'part of the books'). From a formal point of view, such a construction seems to gravitate towards an indefinite end of the spectrum, but G. Danon states that there is no difference between such partitive constructions[367], although he recognizes the difference in the way they are marked as objects[368]:

(50)   *Dan   kana   'et   'axad   ha-sfarim.*
       Dan   buy.PST.3MSG   ACC   one.GEN   DEF-books
       'Dan bought one (of) the books.'

(51)   *Dan   kana   'exad   me-   ha-sfarim.*
       Dan   buy.PST.3MSG   one   from-   DEF-books
       'Dan bought one of the books.'

Moreover, in his study G. Danon acknowledges that there are deviations from this system of partitive constructions object marking recorded in colloquial Hebrew, but the author explains this by the «confusion» between the two options[369], without citing statistics or motivating factors. A recent experimental study by A. Hacohen, O. Kagan and D. Plaut confirms that overt object marking of various types of referential expressions denoting the partial involvement of an object in a situation in Modern Hebrew is optional, and is not based solely on the presence/absence of formal definiteness markers, since the «approval rate» of overt object marking for objects coded by definite partitive constructions among the native Hebrew speakers who participated in the experiment is only 3.5/5[370]. This

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[365] Glinert L. The Grammar of Modern Hebrew. P. 79.
[366] Certain quantifiers indicating an amount can also be attached to nouns by means of a preposition (*kama* 'some', *harbe* 'many', *'exad* 'one', etc.).
[367] Danon G. The Hebrew Object Marker and Semantic Type.
[368] The following examples were proposed by G. Danon.
[369] Danon G. The Hebrew Object Marker and Semantic Type.
[370] Hacohen A., Kagan O., Plaut D. Differential Object Marking in Modern Hebrew: Definiteness and partitivity. Pp. 1-34.

conclusion is confirmed by the HOG corpus data: out of 4 partitives recorded in the corpus acting as direct objects, 3 (75%) are overtly marked.

Thus, it seems reasonable to consider NPs with quantifiers that are used to convey «partial affectedness» (*xelek, rov, ha-marbit, ha-še'ar, ha-yeter*), including those that can be used with a prepositional phrase, in more detail in order to determine what additional factors may influence the way they are marked if encoding the O-participant of the situation.

Let us now consider the quantifier *kol*, that preceding a definite NP conveys the meaning of «all», «everything», «whole» and even «none» in negative contexts[371].

In English, the determiners that convey the meaning of «universality», such as «every», «each», «all», traditionally correlate with definiteness, since it is assumed that the listener can identify the set described by the NP as a whole[372]. However, sometimes researchers distinguish between collective («all») and distributive («every»/ «each») interpretations of these determiners. In relation to Hebrew, in particular, L. Glinert clarifies that used in the distributive meaning *kol* is a determiner, while the collective (universal) interpretation is more naturally perceived as a quantifier[373]. From a logical-semantic point of view, there should be no difference between them, and, as a rule, constructions with universal quantifiers are definite semantically. However, M. Haspelmath noted that distributive universal quantifiers, such as «*every»*, for example, are in many ways close to indefinite pronouns that express the irrelevance of choice, such as «any» does[374]. Following this point of view, NPs with distributive quantifiers are sometimes called «quasi-indefinite».

In Hebrew, the quantifier *kol* allows both collective and distributive interpretations, and the choice, as mentioned above, depends on the type of the NP

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[371] Further details — below.
[372] Lyons Ch. Definiteness. P. 32.
[373] Glinert L. The Grammar of Modern Hebrew. P. 94.
[374] Haspelmath M. Indefinite pronouns. 368 p.

following it[375]. Preceding a definite singular or plural noun, *kol* is interpreted collectively (52), and preceding an indefinite one, the meaning will be distributive in all contexts except in conditional or negative clauses. Before an indefinite singular form, *kol* is interpreted in the distributive sense as «every» (53). In negative and conditional clauses before an indefinite noun, *kol* will also be interpreted distributively as «any» (conditional clauses) and «none» (negative clauses) (54):

(52) *ra'iti*   *'et*   *kol*   *ha-šinuim*

      see.PST.1SG   ACC   all   DEF-changes

      'I saw all the changes.'

(53) *ra'iti*   *kol*   *šinui*

      see.PST.1SG   all   change

      'I saw every change.'

(54) *lo*   *ra'iti*   *kol*   *šinui*

      no   see.PST.1SG   all   change

      'I saw no change.'

In the HOG corpus, NPs with the structure «kol + DefNP» in 100% of contexts were interpreted in a collective sense and regularly overtly marked encoding the O-participant of the situation, regardless of whether the referent was encoded with a singular (11/12) or plural (10/10) noun.

NPs with the structure «kol + IndefNP(PL)», on the other hand, were interpreted as distributive in 100% contexts and were not obertly marked, regardless of whether the referent was encoded with a singular or plural noun.

One example of the distributive interpretation expressed by this type of constructions was the phrase *kol miney šeilot* 'all kinds of questions' (lit. 'all sorts of questions'), where *kol is* part of the determiner *kol miney* 'all kinds of'.

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[375] Glinert L. The Grammar of Modern Hebrew. Pp. 93-94.

Another regularly occurring expression with the distributive meaning *kol ehad me-*[376], literally meaning 'every one of ...', was not observed in the HOG corpus, but a brief search in the heTenTen21 corpus showed that about 15% of «kol ehad me+NP(PL)» constructions are overtly marked. This type of referential expression will be discussed in more detail in Chapter 3, along with other partitive constructions.

However, the greatest variability of asymmetric object marking the HOG corpus demonstrated with the following construction: universal quantifier *kol* followed by relative pronoun *ma* and the subsequent relative clause introduced by the conjunction *še* 'that':

(55) *lir'ot* *('et)* *kol* *ma* *še-yeš* *lo*

   see.INF (ACC) all what that.EXIST to him

   '(to) see all (that) he has'

Of the 4 examples observed in the corpus, in 3 contexts such a construction is marked by *'et*, and in one case — it is not. These data shows the high degree (75% is overtly marked[377]) of object marking variability, and can not be explained by the difference of collective / distributive interpretation of *kol* (all 4 cases are interpreted as collective), or by the difference of the referntail expression definiteness status[378]. As far as the author knows, no studies of this phenomenon have been conducted at the moment.

Another interesting issue is the use of the *quantifier kol* form, *ha-kol* 'everything', which can encode the O-participant in the transititve clause

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[376] This type of referential expression exhibits both distributive characteristics and partitive meaning, but the former in this case is predominant and potentially more significant for the choice of object marking means. Optional object marking of this expression is acknowledged in the literature, but motivating factors are not given (see, e.g., Glinert L. The Grammar of Modern Hebrew. Pp. 86-87).

[377] We will note that a more detailed study in Chapter 3 confirmed the optional object marking of the *kol ma še-* ('all that') type of structures, namely, it was recorded that the degree of object marking variability for this type of referential expression is slightly more than 50%.

[378] For more information on pronoun object marking, see section 2.3.4, but it is difficult to assume a different definiteness status of the same pronoun in the same construction, which, moreover, when used independently as an interrogative pronoun, for example, is never overtly marked.

independently of a noun, but is not overtly marked even if prefixed by a definite article *ha-*. This phenomenon is also noted by researchers with no further explanation[379]:

(56)   *ra'iti*   *ha-kol*

      see.PST.1SG   DEF-all

      'I saw everything.'

This example is unique and seemingly inexplicable, since, as mentioned above, other constructions that use the determiner *kol* in its collective meaning and are coded with the definite article are marked obligatorily (10/10 in the HOG corpus), and in this case we see not even optional object marking, but a prohibited object marking. In the HOG corpus, an example of such use of *kol* has not been recorded, but in Chapter 3 we will further explore this issue and consider the factors that could motivate such a marking strategy in more detail.

Summing up this section 2.3.1, we state that after considering the different noun phrases types, that according to the generally accepted opinion, have to be interpreted as «definite» and, therefore, should be overtly marked if encoding the O-participant of the situation, and comparing this data with the data of the HOG corpus, we get the following picture of the distribution of marked and unmarked NPs (Table 4).

Table 4. Distribution of marked and unmarked definite NPs in the HOG corpus

The type of a specific name group	Marked	%
A noun with a definite article	286/286	100%
NP with ordinal numeral (def+)	1/1	100%
NP with demonstrative pronoun (def+)	8/8	100%
NP with a cardinal numeral	1/1	100%
Noun with possessive suffix	60/60	100%
Construct state	**96/97**	**99%**

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[379] See, for example, Glinert L. The Grammar of Modern Hebrew. P. 94.

NP (def+) with *šel*	31/31	100%
Double genetive (with *šel*)	**11/12**	**92%**
NP with a demonstrative pronoun (indef+)	**0/1**	**0%**
NP with other definite determiners	4/4	100%
NP with a quantifier	**19/24**	**79%**
TOTAL	517/525	98%

Table 4 clearly demonstrates that some types of definite NPs, encoding the O-participant of the situation in a transitive clause, demonstrate optional object marking, and one type (NP with a demonstrative pronoun (indef+)) — even a prohibited marking. Existing studies and grammatical descriptions either do not take into account this variability, or acknowledge a discrepancy without attempting to explain it[380].

2.3.2. Indefinite name groups

Indefinite NP, as follows from clause 2.1., in Modern Hebrew are NPs that are not formed by either the definite article or the pronominal possessive suffix, which are not proper names and do not contain an inconsistent definition in a definite state, i.e. are not part of the construction of a construct state that has a definite status[381]. From the point of view of grammatical norms, all of the listed types of referential expressions encoding the O-participant in the transitive clause must demonstrate a ban on marking. Let's consider them in more detail.

Noun phrases with absolute state forms

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[380] Alekseeva M.E. Tip referentsial'nogo vyrazheniya i opredelennost' kak faktory asimmetrichnogo ob"yektnogo markirovaniya v sovremennom ivrite [Type of referential expression and definiteness as factors of asymmetric object marking in Modern Hebrew] // Litera. 2023. No. 5. P. 31. The only author known to us, who had made an attempt to explain, in particular, the principle of the NP with the demonstrative pronoun (art.-) prohibited object marking, the Israeli linguist G. Danon, conducts his research within the framework of formal syntax, which, in our opinion, excludes from the explanation some features of the semantics of various types of NP, which are extremely important for understanding the principles of DOM in Modern Hebrew.

[381] In the latter case, the interpretation is not always unambiguous, as mentioned in clause 2.3.1.2. on the example of phrases like *'oved ha-bniya* 'construction worker'.

Let's consider the statistics obtained as a result of the analysis of the data of the HOG corpus. Of the 559 occurrences marked as «indefinite NP» according to the above characteristics, indeed, less than 1% (3 occurrences) are marked, which is fully consistent with the principles of object marking proposed by the normative grammars of Modern Hebrew (18). In accordance with the corpus data, unformed nouns (0/471), indefinite noun groups with determiners with the semantics of indefiniteness (*kaze* 'such/similar to*', kolšehu* 'some/any/any', *šum* 'none' and *kol* in the meaning of 'everyone') (0/6) and with indefinite quantitative numerals (0/11).[382]

Genetive constructions

Of the three types of genetive constructions mentioned in § 2.3.1.2-3, only the actual construction of the construct state can be indefinite NP, provided that there is no definiteness index for the dependent member of the construct (*kos mayim* 'glass of water') or a construction with the preposition *šel,* if the head name is not formatted with a definite article (*simulaciya šel ra'ayon* 'interview simulation'), which is a rarer occurrence.

Using a more fractional classification with respect to the partial affiliation of the structural elements of the construct state, we recall that constructions of the following types can act as indefinite NPs: a) noun + noun / noun group with a dependent word, b) adjective + noun (*sfalim mle'ey mayim karim* 'cups full of cold water' (indef.+)), c) participle + noun (*itonim rodfey sensaciyot* 'newspapers in pursuit of sensations' (indef.+)). It is assumed that the NP, encoding the O-participant of the situation in the transitive clause, will demonstrate a ban on labeling in the absence of an indicator of definiteness for the dependent name. This observation is confirmed by the data of the HOG corpus: 100% of indefinite genetive constructions, where the head name (construct state) is formatted as a genital indicator, are not labeled (0/56).

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[382] For more information on marking structures with a *kol* quantifier , see section 2.3.1 below.

In contrast to the constructions of the construct state, the presence of the definiteness index of the dependent name in the genetive construction with the prepositional relationship is not a criterion for the definiteness of NP. As was shown in 2.3.1:

(57) *bgadim*   *šel*   *ha-tinok*

     clothes.PL   POSS   DEF-toddler

     'clothes of the toddler'

In this type of genetive constructionion, the definiteness of NP depends only on the presence of an exponent, more precisely, a definite article, in the head name. The absence of the *'et* marker *in front of the* object should be observed, respectively, in all cases where the O-participant of the transitive clause encoding the reference expression of this type is not formalized with the definite article. This assumption is also supported by the corpus data: 100% of indefinite genetive constructions, where the genitive indicator is the preposition *šel* (prepositional way of marking) are not labeled (0/12).

Noun groups with determiner

As mentioned in 2.3.1., determiners can be attached to both definite and indefinite nouns, forming semantically definite or indefinite NPs. In most cases, the presence of an article at a nominal head is a sufficient basis for marking this NP in the position of direct object.[383]

NPs with a determiner that are not formatted with a definite article are usually semantically indefinite and should not be labeled as a direct object. This group includes, in particular, *eize* and *eizešehu* with derivatives *(eize mesiba* 'some kind of party'), kaze *in an* unstressed position in an indefinite meaning

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[383] Two determinatives in which the noun is not formatted with an article (e.g., *sefer ze* 'this book') or optionally (e.g., *'oto (ha-)maxšev* 'the same computer') are part of the NPs, traditionally interpreted as «definite», and were discussed in 2.3.1.

(*kfafot ka'ele* 'some kind of gloves'), *kalšehu*[384] with derivatives (*tšuva kalšehi* 'any/some/any answer'), *šum* and *af* in negative clauses (*šum 'iparon* 'no pencil'), etc .[385]

   The noun phrase, which includes the quantitative numeral «one» in the forms *'exad* (MSG) and, accordingly, *'axat* (FSG) in a logically unstressed position[386] in forn of an indefinite singular noun, is used to code a referent which is not familiar to either the speaker or the listener. Moreover, despite the formal correspondence in the translation to the Russian indefinite pronoun *odin* 'one', which is usually attributed to the referential-semantic category of «weakly defined» pronouns (along with *koye-kakoy, nekotoryi* 'some'[387]), *'exad* in Hebrew is not necessarily weakly defined, i.e. referring to an object that is known to the speaker, but unknown to the listener. In Russian language, a typical example for the weakly defined pronoun *odin* 'one' would be the statement *V Moskve yest' odin muzey* 'There is one museum in Moscow...' in a situation where the speaker knows about this museum and wants to tell about it to an interlocutor who is unfamiliar with him. In Hebrew, the context of *'exad* may be different[388].

(58) *layla* *'exad* *mazmin*   **baxur** **'exad** *zug* *xaverim*

   night   one   invite.PRS.MSG   guy   one   couple friends

   'One night a guy invites a couple of friends

   le-dirat-o   *ha-xadaša*

   to- apartment.GEN-POSS.3MSG   DEF-new

   to his new apartment.'

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[384] The pronunciation of kalšehu is accepted at the present stage, but previously there was a variant of kolšehu, which retained a phonetic connection with the original version of kol («all», «all» - see earlier): Glinert L. The Grammar of Modern Hebrew. P. 93.

[385] For more details on the forms, meaning and distribution of determiners of this type, see, for example, Glinert L. The Grammar of Modern Hebrew. Pp. 92-101.

[386] In the stressed position, these numerals are interpreted as ordinary numerals.

[387] Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. P. 134.

[388] The pronoun *eize* in contexts where the referent of such a NP is familiar to the speaker, but is not actually a quantitative numeral "one", was not recorded in the HOG corpus, but, most likely, marking the NP with a weakly definite pronoun in this case would not differ from marking the NP from the pronoun of uncertainty, i.e. it would be impossible.

In the example (58) recorded in the HOG corpus, the speaker does not mean by *a guy* a specific «guy» known to him, but unknown to the listener. Moreover, he talks about a hypothetical situation. Here*, 'exad* is close in meaning to another indefinite pronoun of spoken Hebrew, *eize* «some», which refers to an object unknown to the speaker, and accordingly, like *'exad*[389], will refer to the pronouns of obscurity*,* according to the definition of E.V. Paducheva[390]. The indefinite determiner *eize* 'some' (*eizo* (FSG)) in modern colloquial Hebrew is used to more explicitly refer to the indefinite NP[391] (59).

(59) | *bederex* | *klal* | *'axarey* | *še-kvar* | *kaniti* | *mašehu* | *pit'om* |
|---|---|---|---|---|---|---|
| usually | | after | that-already | buy.PST.1SG | something | suddenly |

'after (I) have already bought something, (I) suddenly

'ani	*mocet*	***eize***	***ra'ayon***	*mamaš*	*magniv*
I	find.PRS.FSG	some	idea	really	cool

I find some really cool idea.'

In this case, while using *eize*, the speaker deliberately emphasizes that the referent of the NP is not known to him and is not even real.

Pronoun *kalšehu* (MSG) and its forms have a similar function. It also refers to an unknown referent, but unlike the *eize* NP, which encodes a single, albeit unknown participant of the situation (for example, a «really cool idea» that come to the speaker's mind in the example (59)), *kalšehu* as part of the NP conveys the speaker's indifference to the choice of the referent encoded by this NP. Therefore, despite the fact that in some cases *kalšehu* will be interpreted as a synonym for *eize*

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[389] Sometimes in Hebrew *eize* is used with the enclitic *–šehu* in the same sense, but no such examples have been recorded in the HOG corpus. However, given that *–šehu* is found only in words encoding an indefinite referent that has not been previously mentioned in the discourse (*mašehu* 'something', *mišehu* 'someone', *matayšehu* 'sometine') there is no reason to assume that the object marking of *eizešehu* will differ from the marking of *eize*.

[390] Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. P.134.

[391] First proposed in Wright S.E., Givón T. The Pragmatics of Indefinite Reference: Quantified Text-Based Studies // Studies in Language. 1987. Vol. 11(1). Pp. 1-33.

('some'), in most contexts it will be appropriate to translate it with the Russian pronouns *kakoy-nibud'*, *kakoy-libo* 'any' with a similar meaning.

(60) *necivut*   *lo ra'ata*   *kol te'ud*   *ha-moxiax*

administration   not see.PST.3FSG   all documentation   DEF-prove

'Administration did not see any documentation proving

še-ha-ršuyot   *boxanot*   **bakašot**   **kalšehen**

that-DEF- authorities   check.PRS.FPL   requests   any

that the authorities are checking any requests.'

Of fundamental importance to our study is the fact that the difference in the referential status[392] of these pronouns, as well as their meaning (one unknown object to fit the context or potentially any), does not seem to play a role in the licensing of object marking, since object marking of the NPs with *eize*, *'exad* and *kalšehu*, coding direct object, in the HOG corpus is prohibited (0/6), regardless of the specific determiner used.

Noun groups with quantifiers

Most of the quantifiers are grammatically interpreted as indefinite NPs. The most frequent of them are cardinal numbers, which, followed by indefinite nouns, do not require a change of form, for example, *šloša yeladim* 'three boys'[393].

Indefinite determiners also include most of the other determiners that indicate quantity, for example: *kcat* 'a little', *harbe* 'many', *kama/mispar* 'several', which can be used both in fornt of the indefinite noun (62) and independently (61) — in colloquial Hebrew:

(61) *'axalti*   *harbe*

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[392] For more information on the impact of referential status on the direct object codying, see Chapter 3.

[393] Cardinal numbers in colloquial Hebrew can also be used independently (*kax šeš* 'Take six'). In this case, the head noun is omitted, and the indicator of definiteness, if necessary, can be attached to the numeral itself (*ha-šeš ha-'ele* 'these six (pieces)'). The way of object marking varies depending on the presence / absence of a formal indicator: *kax šeš* 'Take (any) six' or *kax et ha-šeš ha-'ele* 'Take [ACC] these six.'

eat.PST.1SG   a lot

'I ate a lot.'

(62)   *'axalti*   *kama*   *ugot*

        eat.PST.1SG   several   cake.PL

        'I ate several cakes.'

The data from the HOG corpus confirms the lack of object marking logical form their indefinite status: indefinite NPs with cardinal numbers and other quantifiers that indicate an unknown quantity are not marked, if coding as a direct object (0/14).

Among the indefinite quantifiers, that indicate the partial involvement of an object/group of objects in a situation, indicated by a transitive clause, are fractions (for example, *'asirit* 'tenth')[394] and quantifiers such as *xelek* 'part', which form the *partitive* construction.

As already mentioned in section 2.3.1., a number of researchers have expressed contradictory opinions regarding partitive constructions and their object marking in Hebrew. This contradictory behaviour is confirmed by the data of the HOG corpus, according to which partitive constructions show optional object marking (75% are marked, 25% are not), and the licensing factors are either ignored by researchers[395] or has only recently been tentatively studied[396].

Thus, taking into account the infrequent use of partitive constructions in the total volume of indefinite NPs coding a direct object in the HOG corpus, and the high degree of object marking variability for this category of referential expressions, the partitives will be considered in more detail in Chapter 3.

Summarizing Section 2.3.2., which offers an analysis of different NP types that are generally interpreted as «indefinite» and which, accordingly, should avoid

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[394] Were not represented in the HOG corpus.

[395] Danon G. Syntactic Definiteness in the Grammar of Modern Hebrew. Pp. 1071–1116.

[396] Hacohen A., Kagan O., Plaut D. Differential Object Marking in Modern Hebrew: Definiteness and partitivity. Pp. 1-34.

being marked as direct objects, we compared these assumptions with the data of the HOG corpus, and obtained the following picture of marked and unmarked NPs' distribution in accordance with their type[397] (Table 5).

Table 5. Distribution of marked and unmarked indefinite NPs in the HOG corpus

Type of indefinite NP	Marked	%
Indefinite noun	0/471	0%
Construct state	0/56	0%
NP with a cardinal number	0/11	0%
NP with other quantifiers	0/3	0%
NP (art.-) with *šel*	0/12	0%
NP with determiner	0/6	0%
Partitive construction	**3/4**	**75%**
TOTAL	3/563	<1%

Thus, indefinite NPs of various types, encoding a direct object, prohibit object marking, with the exception of the partitive constructions, that, on the contrary, show high chance of being marked, according to the HOG corpus data. Compared to definite NPs, indefinite NPs, in general, behave more uniformly in this regard.

2.3.3. Proper nouns

In accordance with the definiteness scale in the optimality theory (1.2.1.), proper nouns are even higher on the scale than definite NPs, second only to pronouns, since the main function of a proper noun is to accurately identify the referent. This fact is closely related to the postulated obligatory marking of those O-participants of the transitive clause that are encoded using proper nouns: example (63a), from the point of view of normative grammar, is the only way to

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[397] Alekseeva M.E. Tip referentsial'nogo vyrazheniya i opredelennost' kak faktory asimmetrichnogo ob"yektnogo markirovaniya v sovremennom ivrite [Type of referential expression and definiteness as factors of asymmetric object marking in Modern Hebrew]. P. 31.

code a direct object by using a proper noun, while example (63b) is ungrammatical.

(63a)   *ra'iti*   *'et*   *dan*
         see.PST.1SG   ACC   Dan
         'I saw Dan.'

(63b)   **ra'iti*   *dan*
         see.PST.1SG   Dan

At the same time, since in most cases[398] proper nouns do not accept indicators of definiteness, and are still interpreted as inherently definite, object marking of such NPs does not depend on the presence / absence of a formal indicator of definiteness (64-66).

(64)   *pagašnu*   *'et*   *levinson*
         meet.PST.1PL   ACC   Levinson
          'We met Levinson.'

(65)   *pagašnu*   *'et*   *ha-levinsonim*
         meet.PST.1PL   ACC   DEF-Levinsons
         'We met the Levinsons[399].'

(66)   *pagašnu*   *'et*   *yosi*   *ha-raze*
         meet.PST.1PL   ACC   Yosi   DEF-skinny
         'We met skinny Yosi.'

The data of the HOG corpus confirms the obligatory marking of O-participants of the transitive clause, encoded with proper nouns: 31 such contexts are recorded in the corpus, and all direct objects are marked *'et* (31/31).

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[398] Rare cases of exceptions were reflected in section 1.2.1.

[399] As mentioned in 2.3.1., proper nouns in the plural form do take a definite article if the referents of such an NP are members of the same family bearing the indicated surname.

Thus, proper nouns coding direct objects require obligatory marking with the accusative marker *'et,* and of all referential expressions types previously considered (i.e., definite and indefinite NPs, proper nouns) they are the only category strictly following the principles of normative asymmetric object marking.

2.3.4. Pronouns

According to the optimality theory, as indicated in paragraph 1.2.1, pronouns are located in the leftmost position on the definiteness scale (5), therefore, according to the principle «all definite NPs in Modern Hebrew must be marked, while coding an O-participant in a transtitive clause», all pronouns are subject to obligatory marking. However, in linguistics, there has long been an opinion that «pronouns as a class of words are a heterogeneous group»[400]. In our study, we distinguish between pronouns that specify a noun, clarifying the range of its reference, i.e. acting as nominal actualizers, determiners (*sefer* ze 'this book'), and pronouns/pronominal words that independently encode the referent (*ten li 'et ze* 'Give me this'). Various types of determiner pronouns have already been considered by us in 2.3.1-2.3.2. In this section, we will study the pronouns that frequency encode the O-participant of the situation in a transitive clause, without requiring the use of a noun, and determine how much the high degree of definiteness characteristic of the entire class of pronouns, according to the definiteness scale, correlates with the method of object marking the referents encoded by them.

Demonstrative pronouns

The main function of demonstrative pronouns, as well as proper nouns (see 2.3.3.), is to identify the referent in the speech act. At the same time, unlike a proper name, the demonstrative pronoun does not name the referent, but «refers to

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[400] Vinogradov V.V. Russkiy yazyk. Grammaticheskoye ucheniye o slove [Russian language. Grammatical doctrine of the word]. Moscow-Leningrad: UCHPEDGIZ, 1947. 784 p.; Krylov S.A., Paducheva E.V. Mestoimeniya [Pronouns] // Yazykoznaniye. Bol'shoy entsiklopedicheskiy slovar' [Linguistics. Big Encyclopedic Dictionary] / Ch. Ed. by V. N. Yartsev. Moscow, 1998. 294 p.

that element of the context or situation that can fill in the missing information»[401]. «Context or situation» in this case can be understood as the speech component of the situation, i.e. the actual verbal context of the statement, as well as extra-verbal context, including various ostensive instructions accompanying the statement (for example, gestures).

In Modern Hebrew, the pronoun *ze* (MSG) is regularly used to refer to an inanimate object outside of the situation requiring to juxtapose one object to another, or if the referent of the encoded object is present (67). For animate referents in such situations, it is common to use object pronouns, with pronominal suffixes indicating gender and number attached to the form of the marker *'et* (70)[402]. The use of demonstrative pronouns to encode an animate referent in such a context will introduce a connotation of disdain into the utterance[403]. If the utterance implies the juxtaposition of objects (68), then *ze* (SM) or *'ele* (PL) is used, and if a noun was mentioned in the pretext, then the pronoun is consistent with this noun in gender (69)[404].

(67)   *kax*   *'et*   *ze*
       take.IMP.MSG   ACC   this
       'Take this. '

(68)   *toxal*   *'et*   *ze*   *o*   *'et*   *ze*
       eat.FUT.MSG   ACC   this   or   ACC   this
       'Eat this or this.'

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[401] Seliverstova O.N. Mestoimeniya v yazyke i rechi [Pronouns in language and speech]. Moscow: Nauka, 1988. P.32.

[402] If the referent, i.e. the O-particpant of the situation in the transitive clause, is to be encoded with a personal pronoun, Hebrew uses special forms of object pronouns, which are, in fact, a result of merging a special form of the marker *'et ('ot)* with the corresponding pronominal suffixes (*'oto* 'ACC.he', *'otam* 'ACC.they', etc.). Since there is no other way of marking such objects in Hebrew, this kind of marking cannot be called «differential», and, accordingly, it is not the subject of consideration in this work.

[403] Glinert L. The Grammar of Modern Hebrew. P. 54.

[404] For more information on demonstrative pronouns in Hebrew, see Glinert L. The Grammar of Modern Hebrew. Pp. 54-56. The following examples are by L. Glinert.

(69)   *hine*   *smixot.*   *kax*   *'et*   *zot*

       here   blankets   take.IMP.MSG   ACC   this

       'Here are the blankets. Take this (blanket).'

(70)   *lex*   *tiš'al*   *'oto*

       go.IMP.MSG   ask.FUT.MSG   ACC.3MSG

       'Go ask him.'

In order to indicate a referent present in the previous discourse, but not in the physical context of the situation, Modern Hebrew uses personal pronouns to code the subject and object pronouns with the corresponding pronominal suffix for objects. In colloquial Hebrew, an indication of an inanimate object mentioned in a previous statement can be expressed by the pronoun *ze*[405].

From the above examples, at first glance, it is obvious that, regardless of other parameters of the referent, all referents encoded by demonstrative pronouns should be marked as objects, being clearly identifiable by the addressee. However, this fact is not supported by either grammatical descriptions or data from the HOG corpus. Despite the fact that demonstrative pronouns are usually, like personal pronouns, at the top of the hierarchy of definiteness, and one would expect that they are subject to obligatory object marking, according to the HOG corpus, less than half of the referents encoded with demonstrative pronouns (16/33, 48%) are marked.

At the same time, statistical data on the comparative frequency of object marking shows a clear correlation between marking and the form of the demonstrative pronoun (Table 6).

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[405] Glinert L. The Grammar of Modern Hebrew. P. 51.

Table 6. Frequency of demonstrative pronouns' object marking in the HOG corpus

Pronoun	Marked	%
ze (MSG)	15/15	100%
zot (FSG)	**0/17**	**0%**
'ele (CP)	1/1	100%
Total	**16/33**	**48%**

Statistical data of the HOG corpus allows us to conclude that the referents representing O-participant of the cituation encoded by the demonstrative pronoun *ze (*MSG) are marked obligatorily, while the pronoun *zot (*FSG) probably has some unknown limitation on object marking, sinceб according to the corpus data, it's marking is prohibited (0/17). It is quite obvious that the parameter «definiteness of the NP» cannot be a licensing factor in this case, therefore, it is necessary to study this issue in more detail, and assume that the speaker's choice to encode a direct object in a certain way is influenced by other factors. We will return to this issue in Chapter 3.

Interrogative and relative pronouns

The pronouns *mi* 'who' and ma 'what' in Modern Hebrew can act as both interrogative and relative pronouns, which is common for many other languages, leading to some researchers calling this group of pronouns «relative-interrogative»[406].

As an interrogative pronoun, *mi* 'who' can be co-referential to an animate masculine or feminine referent, but only singular, while *ma* — to an inanimate object. Both pronouns are typically placed as close to the beginning of the sentence as possible, for example:

(71)   *ma   hašavta?*

        what   think.PST.2MSG

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[406] Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P. 146.

'What did you think?'

In Modern Herew these pronouns are usually not considered in terms of definiteness / indefiniteness, while in Biblical Hebrew studies *mi* can be sometimes interpreted as a definite element, and ma — as indefinite[407]. Despite the obvious inconsistency, it is quite understandable if we take into account that in both Modern and Biblical Hebrew, pronoun *mi* is obligatory marked with the accusative marker *'et*, which typically marks definite NPs, while object marking of *ma* in the same position is prohibited. Hence, the researchers conclude that one is «definit» and the other — «indefinite». However, interrogative pronouns are more naturally associated with indefiniteness than with definiteness, due to the fact that the speaker obviously does not know which referent it refers to. This notion is confirmed by the fact that in some languages, interrogative words also act as indefinite pronouns, since both imply an «information gap»[408]. Interrogative pronouns typically reflect a request for information about a specific object, whereas the use of indefinite pronouns implies that further information is either unavailable or irrelevant. Let's take a look at the data from the HOG corpus. There are few cases where interrogative pronouns and code an O-participant in the transitive clause, but still the data confirm the principles of object marking described above: *mi* is obligatory marked (1/1), while marking of *ma* is prohibited (0/2).

Thus, interrogative pronouns, as well as demonstrative pronouns, encoding direct object, demonstrate a clear variability of marking, which has nothing to do with the status of «definiteness/indefiniteness» of the referent. In this case, the situation differs from that described above for demonstrative pronouns, since unlike the pronouns *ze* and *zot,* which are perceived as «definite», the interrogative

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[407] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. P. 121 citing GKC § 117c (Gesenius W. Gesenius' Hebrew Grammar / E. Kautzsch (ed.). Transl. Arthur E. Cowley. 2nd ed. Oxford: Clarendon, 1910. 598 p.) и IBHS §10.3.1 (Waltke B.K., O'Connor M.P. An Introduction to Biblical Hebrew Syntax. Winona Lake, IN: Eisenbrauns, 1990. 784 p.).

[408] Bhat D.N.S. Interrogative–Indefinite Puzzle // Pronouns, Oxford Studies in Typology and Linguistic Theory. Oxford. 2007. P. 226.

pronouns *mi* and *ma* are more closely associated with semantic indefiniteness, but their marking also has an additional limitation that is not explained by grammarians and researchers.

The situation is more complicated with relative pronouns, which serve as heads of relative clauses[409].

In the HOG corpus, 5 contexts using relative pronouns and 1 context where the pronoun is omitted, although unambiguously restored, are recorded (Table 7).

Table 7. Frequency of relative pronouns' object marking in the HOG Corpus

Pronoun	Marked	%
Relative pronoun *mi*	1/1	100%
Relative pronoun *ma*	2/3	67%
Relative pronoun *ma* is omitted	1/1	100%
Relative pronoun *'ele*	1/1	100%
Total	**5/6**	**83%**

In accordance with the recorded data, not only is it not possible to explain the variability of object marking by a definite status of a referential expression encoding a direct object, but it is also not obvious that the type of pronoun is correlated with the use of the accusative marker. Whereas the interrogative and relative pronouns *mi* 'who' seem to require the use of the marker *'et*, and the interrogative pronoun *ma* 'what' tends to avoid marking, for the relative pronoun *ma*, judging by the data of the corpus, coding with the accusative marker is, on the contrary, more frequent (3/4), even when the pronoun itself is omitted:

(72)   *yexapsu*   *'et*   *ma*   *še-*   *'amartem*   *lahem*

    seek.FUT.3PL   ACC   what   that   tell.PST.MPL   to them

    'They will look (for) what you told them.'

---

[409] In Modern Hebrew, there are other types of relative pronouns, but in this study, in our opinion, it is advisable to consider the pronouns *ma* and *mi*, firstly, since they often code a direct object, and secondly, since in this role they show a significant variability of marking.

(73) *yetaknu*   *'et*   *še-*   *nidraš*

       исправлять.FUT.3PL   ACC   который   требуемый

       'They will fix (what) is required.'

The relative pronoun *'ele* 'these', sharing a form with the plural demonstrative pronoun[410], is marked (1/1) in the corpus.

Thus, it is not possible to explain the variability of object marking of interrogative and relative pronouns in terms of the «definiteness / indefiniteness» parameter, so in Chapter 3 we will consider in more detail other factors that, in our opinion, license the object marking for this category of referential expression.

Reflexive and reciprocal pronouns

Along with demonstrative and relative pronouns discussed above, reflexive and reciprocal pronouns also belong to the class of anaphoric pronouns. They are typically used within the same finite clause in which the referent they refer to is mentioned[411]. Among the Modern Hebrew reflexive pronouns is the pronoun *'acmo*, structurally consisting of the construct form of the noun *'ecem* 'bone, essence' and the pronominal suffix, changing its form depending on the grammatical characteristics of the noun encoding the agent (74).

(74) *hu*   *šina*   *'et*   *'atsm-o*

       he   change.PST.3MSG   ACC   PRO-3MSG

       'He changed himself.'

In addition to the fact that structurally the pronoun takes a definiteness indicator (pronominal suffix) of NP, in accordance with its function, the pronoun *'acmo* will always indicate a specific referent, mentioned in the previous discourse, and at a short distance from the pronoun itself. Therefore, it is interpreted as a «definite» object and is obligatory marked in the formal position of the direct

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[410] This phenomenon is not uncommon in the languages of the world — very often demonstrative pronouns are both anaphoric and deictic.
[411] Glinert L. The Grammar of Modern Hebrew. Pp. 67-68.

object[412]. We did not find any corpus data that contradicts such a statement, since the pronoun *'acmo* demonstrates 100% obligatory object marking (17/17).

Reciprocal pronouns are represented in Hebrew by 4 alternative expressions, differing from each other in the degree of formality. The pronouns *iš – xavero/re'ehu* (M), *iša – khaverta/re'uta* (F) and the rarer ones – *'exad – mišnehu* (M), *'axat – mišneha* (F), for colloquial speech and informal register – *ze – ze* (M), *zo – zo* (F) and *'exad – ha-šeni* (M), *'axat – ha-šniya* (F)[413].

Reciprocal pronouns in Hebrew are used with the obligatory interposition of the required preposition (75) / accusative marker (76).

(75)   *hem   ne'eman-im   ze   la-ze.*

         they.M   loyal-MPL   this   for-this

         'They are loyal to each other.'

(76)   *hem   ra'u   ze   'et   ze.*

         they.M   see.PST.3PL   this   ACC   this

         'They saw each other.'

Like the reflexive pronoun *'acmo*, reciprocal pronouns require object marking in a transitive clause, both from a formal grammatical and semantic point of view. Structurally, every second element of all reciprocal pronouns is definite (by itself - *ze* 'this', or by the use of the definiteness indicator (*re'ehu* (suffix), *ha-šeni* (article)). Semantically, the condition for the use of reciprocal pronoun, as a rule[414], is the indication of specific agents performing the action within the same

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[412]The pronoun *'acmo* can also be used as a determiner to emphasize the noun to which it relates: *ta'ašimu 'et ha-sar 'acmo* 'Blame the minister himself'. Such an NP can only be interpreted as definite NP and should be marked as indicated in 2.3.1.

[413] For more information about the forms and the distribution of reciprocal pronouns, see, for example, Glinert L. The Grammar of Modern Hebrew. 1989. Pp. 68-69.

[414] There may be contexts where the names encoding agents are used in a generic or existential sense (such referential statuses will be discussed in more detail in Chapter 3), for example, *lefa'amim 'anašim 'ohavim 'exad 'et ha-šeni, aval ze lo maspik* 'Sometimes people love each other, but this is not enough'. But even in this case, object marking will be licensed, at least, by the presence of a formal indicator of definiteness.

finite clause. Accordingly, object making of the second element of reciprocal pronouns is obligatory, which is confirmed by the data of the HOG corpus (5/5).

Indefinite pronouns

In section 2.3.2. we discussed the use of the indefinite pronouns *'exad* 'one', *eize*[415] 'some' and *kalšehu* 'any', which in colloquial Modern Hebrew, when used with an indefinite noun, indicate that the referent of such an NP is not known to the participants of the speech situation. Such pronouns in our study are interpreted as determiners, clarifying the range of reference for the NP, including indefinite determiners, that according to the HOG corpus, are not marked as direct objects (see section 2.3.2).

In this section, we will study indefinite pronouns that can encode the O-participant of a situation in a transitive clause. The most common pronouns of this type in Modern Hebrew are *mišehu* 'someone' and *mašehu* 'something'. These pronouns are derived from the above-mentioned forms of the relative-interrogative pronouns *mi* 'who' and *ma* 'what' by attaching an inseparable particle *–šehu*. They encode a referent that cannot be identified by the speaker at the time of speech. The only information that the speaker has at the time of speech is the identification of the referent with an animate or inanimate object. For animate referents, the speaker can also use the pronoun *mišehi* (F), if it is obvious from the context of the situation that it is a female referent. If it is necessary to encode a group of people unknown to the speaker, indefinite NPs will be used, for example, *kama 'anašim* 'some/several people', etc. If a group of people was mentioned in the pretext, then the pronoun *'exad* (M) / *'axat* (F) 'someone/somebody' can be used to refer to one/any of them by the speaker (usually followed by a relative clause that clarifies the range of reference, but does not make the referent uniquely identifiable)[416].

Other indefinite pronouns for encoding inanimate referents in Hebrew include *davar/dvar-ma* 'something', *'exad* (M) / *'axat* (F) 'some' — to distinguish one object from the group indicated above in the pretext.

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[415] Halevy R. Modern Hebrew syntax. Pp. 708-709.
[416] Glinert L. The Grammar of Modern Hebrew. Pp. 65-66.

(77) *po*   *ugot.*   *kax*   *'axat*

      here   cakes.F   take.IMP.MSG   one.F

      'There are cakes here. Take one.'

According to the HOG corpus, object marking of indefinite pronouns encoding O-participants of a situation in a transitive clause is prohibited (0/7), both for pronouns encoding an inanimate referent (*davar, mašehu*), as well as animate ones (*mišehu*).

Thus, having considered the various categories of pronouns that can encode the O-participant of the situation in the transitive clause in Modern Hebrew and having analyzed the ways of marking a direct object encoded by various pronouns using the HOG corpus data, we came to the conclusion that the method ofobject marking for this type of referential expressions definitely correlates with the nature of their pronominal meaning, although for some pronouns object marking is optional, even though they belongs to the same lexical-semantic category (Table 8).

Table 8. Frequency of pronouns' object marking in the HOG corpus: summary

Lexical-semantic category of the pronoun	Marked	%
Demonstrative pronouns	**16/33**	**48%**
Pronoun *ze*	15/15	100%
Pronoun *zot*	**0/17**	**0%**
Pronoun *'ele*	1/1	100%
Reflexive pronouns	17/17	100%
Pronoun *šnehem*	1/1	100%
Interrogative pronouns	**1/3**	**33%**
Relative pronouns	**5/6**	**83%**
Reciprocal pronouns	5/5	100%
Indefinite pronouns	0/7	0%
Object pronouns	122/122	100%

TOTAL	167/194	86%

Thus, the pronouns encoding the O-participant of the situation in the transitive clause demonstrate the greatest variability of object marking of all the types of referential expressions described above, recorded by the HOG corpus of Modern Hebrew. Of these, the variability of marking is more inherent in interrogative pronouns (only 33% of those recorded in the corpus are marked), demonstrative pronouns (only 48% of them are marked) and relative pronouns (83% marked). Despite the paucity of examples and, therefore, the impossibility to draw objective conclusions about the principles of optional object marking of pronouns encoding the O-participant of the situation in Hebrew in general, the results, in our opinion, clearly demonstrate the existence of other factors licensing DOM for several types of pronouns, in addition to the «definiteness» factor, and this issue will be the subject of discussion in Chapter 3.

Conclusions to Chapter 2

In this chapter, we studied the basic principles of asymmetric object marking, described in scientific literature and normative grammars of Modern Hebrew, and also analyzed various types of referential expressions that in Hebrew can encode the O-participant of a situation in a transitive clause, distributing them relative to the definiteness scale into four categories (indefinite NP, defined NP, proper nouns and pronouns).

A definite status of the NP may be indicated, first, by the definite article; moreover, NPs with a definite status are often structured as «polydefinits», i.e. constructions in which the indicators of definiteness are repeatedly used for each element of the NP. Secondly, a definite status is assigned to genetive constructions, the dependent element of which is expressed by the definite NP (including a proper noun). NPs, consisting of a proper noun or a common noun with a possessive pronominal suffix, are also considered definite. Although the category of definite NPs also includes NPs with certain determiners that indicate the semantics of definiteness, such NPs tend to have other indicators of determination (e.g., the

definite article). Exceptions are the determiner *'oto* 'the same', which does not require a definite noun, as well as demonstrative pronouns, which are not required to be marked by a definite article, provided that the noun does not have an article either (*sefer ze* 'this book'). Indefinite NPs, respectively, do not axxept indicators of definiteness, and cannot be proper names. There is no indefinite article in Hebrew.

An analysis of the NPs' structure, distribution of the definite status indicators and asymmetric DOM allows us to conclude, that in the vast majority of cases, referential expressions encoding an O-participant of the situation are preceded by the accusative marker in accordance with the basic principles of Hebrew object marking, i.e. in accordance with the generalized thesis «all definite expressions are marked, the object marking of all the indefinite ones is prohibited». However, according to the HOG corpus data, only one category, «proper nouns», demonstrates the complete consistency of statistical results with this principle, i.e. proper nouns are marked obligatorily in 100% of contexts. The remaining categories demonstrate the varying degrees the optionality of object marking for one or more types of referential expressions within each category (Table 9).

Table 9. Correlation of the "definiteness" parameter and asymmetric object marking (according to the HOG corpus): summary

Category	Type of referential expression	Marked (%)
Proper nouns	Proper noun	100%
Definite noun phrases	Noun with definite article or possessive suffix	100%
	NP with ordinal and cardinal numbers (art.+)	100%
	NP with demonstrative pronoun (art.+)	100%
	NP with other determiners (def.+)	100%
	Construct State (def.+)	99%
	NP (art.+) with *šel* and «double genitive»	98%
	NP with a quantifier	**79%**
	NP with demonstrative pronoun (art.-)	**0%**

Pronouns	Object pronouns	100%
	Reflexive pronouns	100%
	Reciprocal pronouns	100%
	Relative pronouns	**83%**
	Demonstrative pronouns	**48%**
	Interrogative pronouns	**33%**
	Indefinite pronouns	0%
Indefinite noun phrases	Indefinite noun	0%
	Construct State (indef.+)	0%
	NP (art.-) with *šel*	0%
	NP with cardinal number	0%
	NP with other quantifiers	0%
	NP with determiner (indef.+)	0%
	Partitive construction	**75%**

We suggest that in order to explain the variability of asymmetric object marking in Modern Hebrew, it is necessary to take into account additional factors licensing DOM in addition to the «definiteness» parameter covered in this chapter, and to identify them, we will have to consider certain types of referential expressions, that have demonstrated the optionality of object marking, in more detail in Chapter 3.

CHAPTER 3. DISCOURSE-PRAGMATIC FACTORS IN ASYMMETRIC OBJECT MARKING

In Chapter 2, it was shown that a definite status of a referential expression, traditionally understood in Hebrew syntax as a binary category correlated with the presence/absence of formal indicators of initeness in an NP, cannot be the only parameter of the asymmetric DOM in Modern Hebrew. The objectives of this chapter will be to identify a set of factors licensing object marking of an asymmetric type in Modern Hebrew, using textual quantitative analysis within the framework of the corpus-statistical method, as well as to form a hierarchy of the identified factors and to provide argumentation within the framework of existing views on the phenomenon of DOM in functional-typological literature. In particular, it will be demonstrated that the method of coding the O-participant of the situation in the transitive clause depends on the referential status of the NP and on the information status of the referent coded by this NP. In general, referent NPs encoding more active in discourse and, consequently, more cognitively significant to the listener referents are more likely to be marked.

Also in this chapter we will consider other parameters that determine the degree of individuation of the object, which, as mentioned in Chapter 1, directly correlates with asymmetric object marking.

As have already been mentioned, according to P. Hopper and S. Thompson (see paragraph 1.2.2.), a high degree of individuation correlates with animacy, definiteness and specific referential status of the object, including one expressed by proper nouns and singular forms[417], and according to G. Khan, an individuated object is most likely to match the following criteria: the definiteness of the NP, the presence of a quantifier[418] as part of the NP, and the absence of a reflexive element with the predicate, the referentiality and animacy of the referent, its encoding with a propernoun, as well as the degree of activity of the referent in the discourse[419].

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[417] Hopper P., Thompson S. Transitivity in grammar and discourse. P. 253.
[418] G. Khan: «qualifier».
[419] Khan G. Object markers and agreement pronouns in Semitic languages. Pp. 469-470.

Some of these parameters, namely the presence of definiteness indicators, the encoding of the referent with a proper noun, singular / plural forms, the presence of a quantifier in the NP and the distribution of reflexive elements, have already been considered by us in Chapter 2 using the material of the Hebrew language.

As a result of the analysis of corpus data (HOG corpus), we stated that some types of referential expressions show object marking to be optional, or demonstrate a discrepancy between the recorded coding method and the postulated principles of asymmetric object marking. Such referential expressions included the following: relative and interrogative pronouns *mi* and *ma*, demonstrative pronouns, and NPs with demonstrative pronouns(art.-) (such as *sefer ze* 'this book'), NPs with the *kol* quantifier, and partitive constructions.

In this chapter, we will study the discourse-pragmatic parameters associated with the category of «definiteness», which could affect the results described above for these types of referential expressions. In particular, we will analyze such factors as the *referential status*[420]*,* the *animacy*[421] of the referent of an NP, its *identifiability* and *accessibility* in discourse[422]. The last three parameters are often associated with the «information status of the referent», which will be discussed below.

In Chapter 3, we will rely on statistical data provided mainly by the HOT (Hebrew Object Targeted corpus) research corpus, which has been described in section 2.2.

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[420] Referential expression type and the referential status of such expressions are considered, in particular, by A.L. Malchukov and P. de Swart (Malchukov A., de Swart P. Differential case marking and actancy variation. P. 339–355).

[421] The opinion that the animacy of the referent is a pragmatic characteristic, which seems quite reasonable, given the following analysis of object marking in Modern Hebrew, was expressed by P. Bekins in relation to the Biblical Hebrew language data (Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. P.126).

[422] Correlating the grammatical category of definiteness with the pragmatic parameters «identifiability» and «accessibility» is an accepted method in the discourse approach to DOM (see, for example, Lambrecht, K. Information structure and sentence form: Topic, focus, and the mental representations of discourse referents. Cambridge: Cambridge University Press. 1994. 388 p.).

The HOT corpus data presented in Table 10 below confirms that each of the categories we have identified in Chapter 2 does indeed display optional object marking to some extent.

Table 10. Frequency of object marking in regards to referential expressions, displaying optional object marking (according to the HOG corpus): summary

Reference expression type	Marked	%
Relative pronouns	100/129	77%
NPs with quantifier *kol*	197/316	62%
Demonstrative pronouns	139/290	48%
Partitive constructions	59/152	39%
Interrogative pronouns	31/92	34%
NPs with demonstrative pronouns (art.-)	6/223	3%
Total	**717/1313**	**55%**

We will also continue to critically analyze the data of the HOG corpus in order to consider the influence of the identified factors, regulating object marking, for all types of referential expressions encoding the O-participant of the situation in the transitive clause in Modern Hebrew.

3.1. Referential status of NP in Modern Hebrew

The importance of the referential status of an NP for differential object marking (DOM) was described by us in Chapter 1. Many researchers have pointed out the role of the parameters «definiteness» and «referential status»[423], in particular, the fact that most definite NPs are referential (specific), and it is possible to consider «definite» to be close to «specific»[424].

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[423] See, for example, Givón T. Definiteness and referentiality. Pp. 291-330; Gundel J.K., Hedberg N., Zacharski R. Cognitive Status and the Form of Referring Expressions in Discourse. Pp. 274-307; Lambrecht K. Information structure and sentence form … 388 p.; Heusinger K., Kornfilt J. Partitivity and case marking in Turkish and related languages. Pp. 1-40; Serdobolskaya N.V., Toldova S.Yu. Differentiated marking of direct objects in Finno-Ugric includes // Finno-Ugric languages: fragments of a grammatical description. Formal and functional approaches. M.: Languages of Slavic cultures. 2012. Pp. 59-142, etc.

[424] Givón T. Syntax: an introduction. P. 441.

In several studies, a definiteness scale is formed, taking into account, among other things, the referential characteristics of an NP[425]:

(78) Definiteness scale:

Pronoun > Proper name > Definite noun > Specific indefinite noun > Non-specific noun

However, in our study we will distinguish between «formal» definiteness, encoded by definiteness indicators, which were for Modern Hebrew were discussed in Chapter 2, and referential status, since, as will be demonstrated below, for some types of referential expressions, such a distinction will be critical.

As has already been stated in 1.4.1., by referentiality we mean «the correlation and interconnection between linguistic expressions and extralinguistic objects and situations»[426], or in other words, with reality, or rather with the model of reality in the minds of the speech act participants[427].

Despite the lack of a detailed classification of referential status of an NP in Modern Hebrew and, in general, the lack of research on this topic in Modern Hebrew studies, there is some research, using the theoretical developments of the field to their advantage. In particular, according to L. Glinert, the marking of an NP with a definite article (i.e., the main definiteness indicator) is intended to inform the addressee that the referent of this NP is known to them[428]. This awareness can be acquired by pointing to the object of discussion, for example, by means of a gesture, mentioning an object in pretext or in subsequent discourse, as well as by the conceptual uniqueness of the object (for example, *ha-ʿolam* 'the world', *ha-šemeš* 'the sun'), or its uniqueness in a given situation (*ha-mištara* 'the

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[425] Aissen J. Differential object marking: Iconicity vs. economy. Pp. 435–483; Heusinger K., Kornfilt J. The Case of the Direct Object in Turkish: Semantics, Syntax and Morphology. Pp. 3-44.

[426] Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. P.79.

[427] This clarification was put forward in Serdobolskaya N.V., Toldova S.Yu. Differential Marking of Direct object in Finno-Ugric Languages // Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches. Moscow: Languages of Slavic cultures. 2012. Pp. 59-142, and below we will demonstrate the importance of this notion for studying DOM in Hebrew.

[428] Glinert L. The Grammar of Modern Hebrew. P. 13.

(local) police', *ha-horim* 'the parents' (of one of the interlocutors, or the person under discussion))[429]. Speaking about the «uniqueness» of the referent, Glinert refers to the notion defined by A.D.Shmelev as «the uniqueness of the object, matching the chosen nomination»[430] within the framework of the denotative space existing at the time of speech, i.e. that fragment of extralinguistic reality that is relevant for understanding a particular statement.

Such NPs, encoding referents uniquely identifiable in a pragmatically relevant denotative space, will have a specific referential status, but may differ in the degree of identifiability[431] (see 1.4.2.). In particular, the referents of the NPs mentioned earlier in the discourse will have the greatest identifiability («involved»), those identified using the situational context («inferrable») will have a relatively smaller one, and those that have not been used previously in the discourse, but about which the addressee has a general idea of how unique objects are, will be the least identifiable for a given type. It is the specific referential NPs that are most frequently accompanied in Hebrew by typical indicators of definiteness (definite article, definite determiner, possessive suffix, proper name), but, as indicated in clause 1.4.2., the speaker's choice to mark an NP with a specific indicator will depend on the position of the referent in the Givenness hierarchy, i.e. in the short-term memory of the speaker and the addressee[432].

However, the definite article can be recorede not only with specific referential NPs, especially if we consifer not only about individual NPs. In the E.V. Paducheva's study (2017), the concept of «non-specific referential NP» is explained as including, among other things, *universal* and *generic* NPs[433].

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[429] Ibid. P. 13-15.

[430] Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. Pp. 34-36, 74.

[431] In this study, the referential status of the NP will be determined in accordance with the work of Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. 293 p.

[432] Gundel J.K., Hedberg N., Zacharski R. Cognitive Status and the Form of Referring Expressions in Discourse. P. 275.

[433] Paducheva E.V. Referentsial'nyy status imennoy gruppy [Referential status of the noun phrase] // Russkaya korpusnaya grammatika [Russian Corpus Grammar]. 2017. [Electronic

Universal NPs can be represented by both concrete and abstract sets. In the first case, we are talking about a set of objects that are in a common pragmatically conditioned denotative space of interlocutors («All children have fallen asleep»), and in the second — about the set that makes up the extension of the noun («All children want to become adults»).

In Modern Hebrew, the quantifier *kol* 'all' is frequently used to encode both concrete and abstract sets, followed by the plural form of the noun: *kol (ha-)sfarim* 'all (the) books'. In L. Glinert (1989), it is noted that the universal interpretation for NPs, including the quantifier *kol*, is possible both if the noun is preceded by a definiteness indicator, i.e. if the «encompassing» set consists of several objects entered into the field of view of the addressee or identified with certainty by the chosen description, and if the noun is indefinite[434]. However, in recent years, quantifier *kol* has become increasingly used with a definite plural noun form. This observation is supported by data from the HOG corpus, where 100% (11/11) of such NPs are accompanied by either an article or a possessive suffix.

The generic use of NP implies correlation either «with a class of objects (with an extensional of a common name) or with a typical representative of a class»[435]. And, despite the fact that such NPs are non-specific referential, they can also take an article in Modern Hebrew:

(79) *ha-hodim*   *xaxamim*

      DEF-Indians   smart

      'Indians are smart.'

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source]   URL:
http://rusgram.ru/new/chapter/label/Референциальный_статус_именной_группы/   (accessed 30.05.2023).

[434] Glinert L. The Grammar of Modern Hebrew. P. 72.

[435] Paducheva E.V. Referentsial'nyy status imennoy gruppy [Referential status of the noun phrase] // Russkaya korpusnaya grammatika [Russian Corpus Grammar]. 2017. [Electronic source]   URL:
http://rusgram.ru/new/chapter/label/Референциальный_статус_именной_группы/   (accessed 30.05.2023).

Generic NPs differ from universal ones in that they do not imply the involvement of all representatives of the class referred to by the name, but, on the contrary, allow exceptions.

However, when using generic NP, the definite article may not be used[436]:

(80)   *'ahavti*   *hodim*

       like.PST.1SG   Indians

       'I liked (the) Indians'.

Moreover, the marking of this NP with a definite article will not only require the use of an accusative marker, but also, apparently, lead to a different interpretation of the statement:

(81)   'ahavti   'et   ha-hodim.

       любить.PST.1SG   ACC   DEF-индийцы

       'Мне понравились (эти) индийцы'.

In (81), the NP naturally acquires a specific referential status, which suggests that the speaker has met a definite set of people, referred to as «Indians», and this statement expresses his attitude towards them.

Note that the quantifier *kol* can be used not only to denote an «encompassing» set[437]. When used with a noun in the singular form, encoding a referent with a specific reference and markinged, respectively, by an indicator of definiteness (for example, an article), the entire NP also acquires a specific reference status and the value of completeness of coverage[438]:

(82)   kol   ha-sefer

       весь   DEF-книга

       'вся книга'

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[436] For this and previous examples, see Glinert L. The Grammar of Modern Hebrew. Pp. 20-21.

[437] The term «encompassing set» is used by A.D. Shmelev in Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. Pp.85-86.

[438] According to A.D. Shmelev, in Russian language there is also parallelism in the use of singular and plural forms with quantifiers *vsjo/ves'* 'all'. In particular, in such examples as *vypil vsjo moloko (vse slivki)* 'drank all the milk (all the cream)' (Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P.85-86).

If it is necessary to emphasize that the object is fully affected by the action, the determiner *kulo* (M) 'entirely' is used.

Therefore, the presence/absence of a definiteness indicator (definite article) in an NP with the quantifier *kol* plays a key role in interpreting the entire NP. The use of *kol* with an indefinite noun in the singular form requires an individual consideration of the elements of the set involved in the situation under consideration, i.e., in the terminology of A.D. Shmelev, it expresses the meaning of «isolation»[439] corresponding to the Russian word *každyi* 'each' (83).

(83)   *kol   sefer*

    all   book

   'each book'

Moreover, in this case, the set from which the object of speech is isolated can be both known to the addressee and limited («every»), or open, implying the whole set of objects referred to by the name (close to the semantics of «any»[440]). The distinction between the meanings of «each» (an individually considered element of an open or limited set («Each book brought something new to my life») and «everyone» (a collective understanding of all elements of a fundamentally unlimited set («Every book is ahead of the reader's experience»)[441] at the lexical level in Hebrew is not made: in any of the above examples the use of the phrase *kol sefer* is natural. However, the context allows us to identify the exact meaning of such an NP and, therefore, its referential status[442].

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[439] Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P. 87.

[440] In Hebrew «any» can also be translated using the determinative *kalšehu*, but it tends to be used predominantly in spoken language.

[441] For more details on the semantic differences of words corresponding to «each», «everyone», «any» in Russian, see, for example, Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. Pp. 79-94; Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. Pp. 83-88; Paducheva E.V. Referentsial'nyy status imennoy gruppy [Referential status of the noun phrase], etc.

[442] According to E.V. Paducheva, if there is an indication of the distributive plurality (for example, Russian *každyi* 'each'), an NP is perceived as specific referential, and if an NP is built on the basis of a common name with an open extensional, i.e. implying an unlimited open set

(84)   *im*   *tiš'alu*   **kol**   **xatan**   **bar micva**

if   ask.FUT.2PL   all   groom   bar mitzvah

'If you ask **anyone (celebrating) a bar mitzvah**,

ma   *ha-davar*   *še-**hu***   *haxi*   *mexake*

what   DEF-thing   that-he   most   ждать.PRS.MSG

what does **he** wait for the most,

hu   *yagid*   *la-xem*   *matanot*

he   tell.FUT.3MSG   DAT-2MPL   gifts

he will tell you – gifts.'

In (84), the only possible interpretation of the expression *kol xatan bar micva* is precisely 'anyone celebrating bar mitzvah', since an individual examination of each object (in this case, interviewing each boy celebrating a bar mitzvah) is impossible, and is not implied by the context of the sentence. Therefore, we will perceive the NP *kol xatan bar micva* as an NP with a universal reference, and the anaphoric pronouns *hu* (MS) as having a *variable* reference in a relevant-denotative space with a generalized value[443].

A.D. Shmelev also connects this type of contexts with the «variable denotative space», which «is established by alternately selected elements of some set introduced into consideration»[444]. Accordingly, A.D. Shmelev introduces the concept of «distributive definiteness» for cases where the referent is uniquely identifiable in each individual denotative space (for example, «A horse sometimes knocks down *a rider*»), and «distributive indefiniteness» for cases where an indefinite reference takes place in each of the changing denotative spaces (for example, «Any two people will have a topic for conversation»)[445].

(«any»), it is perceived as universal (Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. P. 96).

[443] Paducheva E.V. Referentsial'nyy status imennoy gruppy [Referential status of the noun phrase].

[444] Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P. 98.

[445] Ibid. Pp. 98-99.

For example, distributive definiteness takes place in statements where the referent is clarified with the help of a possessive suffix, referring to the set mentioned in the discourse:

(85) *batey*   *ha-din*   *ha-rabanim*   *ka-cafui*

house.GEN   DEF-law   DEF- rabbinic   as-expected

'rabbinic courts, as expected,

yaf'ilu   **'et**   **kol**   **kox-am**

do.FUT.3PL   ACC   all   power-POSS.3MPL

will do all (in) their power'

In (85), the NP *batey ha-din ha-rabbaniim* 'rabbinical courts' has a specific referential status in the variable denotative space, since it is understood that each specific court (even if it was not mentioned earlier in the pretext and the addressee cannot identify all of them with certainty) will make every effort to prevent the situation described in the pretext.

The referential status of the NP can be encoded not only with the help of the definite article or its absence. Both specific and non-specific NPs can be coded with the help of determiners: *sefer ze* ('this book', a definite specific status), *sefer 'xad* ('one book / some book' in a situation where the speaker knows the referent, but for the listener the referent is unknown: weakly definite specific), *eizešehem sfarim* ('some books', indefinite specific), *šum sefer* ('no book', non-specific status)[446].

The most important factor in determining the referential status of an NP in general and, in particular, of an NP with *kol* is the possibility to use of NP in the context of negation. Moreover, if the negation is contained in the semantics of the verb, then NP with *kol* most often tend to be interpreted as universal reference

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[446] Some of the listed NPs may acquire different statuses depending on the context. For example, in the statement *hu hevi eizešehem sfarim* ('He brought some books'), the NP has a weakly definite specific status. But, for example, NPs with the determinative *šum* 'none' will always have a non-specific status, since they will always be used in the context of «removed affirmativeness», namely in negative sentences.

(86), and if the action itself expressed by the verb is denied, then the NP will be considered non-specific (87).

(86)   *haras*   *kol*   *efšarut*
        destroy.PST.3MSG   all   possibility
        'He destroyed every possibility.'

(87)   *hu*   *lo*   *kibel*   *kol*   *tašlum*
        he   not   get.PST.3MSG   all   pay
        'He didn't get any pay.'

NPs expressed by negative pronouns (e.g., *klum* 'nothing'*,   af ehad* 'nobody'*)* and NPs with determiners in the form of negative polarity pronouns, e.g., *kalšehu* ('any') when used in a conditional or interrogative sentence, as well as with *af* and *šum* in negative sentences, will also be considered non-specific.

As follows from the above, referential status of the NP is closely related to the formal status of definiteness, which is expressed by various definiteness indicators. In particular, many specific NPs (both specific-referential and non-specific referential: universal and generic) will be coded with a definite article or other indicators. In the same way, non-referential status is associated with indefinite NPs, and, therefore, the non-referential NPs or NPs implying a free choice of the referent and used in negative contexts or contexts with the affirmativeness removed will not be accept defeiniteness indicators.

Let us check this statement using the the HOG corpus data.

Table 11. Correlation of the «referential status» parameter and asymmetric object marking (according to the HOG corpus) (p-value < .00001)

Type of the noun phrase	Marked	%
Referential NPs	530/672	79%
Non-referential NPs	61/508	12%
Total	**591/1180**	**50%**

According to Table 11, despite the equal number of marked and unmarked NPs encoding a direct object in the HOG corpus, the differentiation in their referential status is obvious: referential NPs are marked 6.6 times more often than non-referential ones. The p-value parameter[447] calculated for the data indicated in the table also proves an undoubted correlation between the markedness of the NP encoding the O-participant of the situation in the transitive clause and its referential status.

However, in many cases, due to the fact that many referential NPs may accept definiteness indicators, it is not possible to establish which factor licenses object marking, «definiteness status» or «referential status». For example, NPs with a possessive suffix, article or proper nouns, based on the data of the HOG corpus, are marked as a direct object with a frequency of 99.6% (492/494) and at the same time they all are referential (specific) NPs, which does not allow us to determine exactly which of the two factors regulates DOM specifically.

However, as will be shown below, in some cases, the referential status turns out to be critically important for understanding the way of encoding the referent and the choice of object marking specific referential expression.

3.1.1. Construct state

Let us consider the genetive constructions with the construct form, which were described in section 2.3.1. We mentioned that, according to G. Danon, there

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[447] The p-value parameter in this and subsequent tables reflects the result of the chi-square test, which is used in statistical studies to determine the probability that this correlation is random. A p-value of less than 0.05 indicates that the probability of a random correlation between variables is less than 5%, which is generally considered statistically significant. For more information about the counting method and the use of significance level parameter in corpus studies, see, for example, Gorina O.G. Ispol'zovaniye tekhnologiy korpusnoy lingvistiki dlya razvitiya leksicheskikh navykov studentov-regionovedov v professional'no-oriyentirovannom obshchenii na angliyskom yazyke [The use of corpus linguistics technologies for the development of lexical skills of regional studies students in professionally-oriented communication in English]: dissertatsiya na soiskaniye uchenoy stepeni kandidata pedagogicheskikh nauk [dissertation. Candidate of Pedagogical Sciences]. Moscow, 2014. 321 p.

is a seeming discrepancy between the semantic and grammatical definiteness of some construct states, for example (88-89)[448].

(88) *'oved*   *ha-bniya*   *šavar*   *'et*   *ha-xalon.*
      worker.GEN   DEF-construction   break.PST.3MSG   ACC   DEF-window
      'The construction worker broke the window.'

(89) *hu*   *lakah*   *'et*   *girzan*   *ha-yad.*
      he   take.PST.3MSG   ACC   axe.GEN   DEF-hand
      'He took a hand axe.'

In both (88-89), the NPs coding the O-participants do not occur in the preceding or subsequent discourse, which makes them insignificant in the context, and, at first glance, non-individuated objects, which, nevertheless, are marked by the definite article. G. Danon considers both of these NPs to be semantically indefinite and therefore explains this discrepancy between semantic indefiniteness and accusive marking by the «syntactic case»[449]. But in our opinion, the roots of this phenomenon lie in referentiality. In particular, in both (88) and (89), both referents will be unknown to the speaker and the addressee, but the NPs encoding them will be referential. Referential correlation in this case is carried out through associations with other specific referents relating to the specific situation described, i.e. the object is individuated by its participation in the situation described in the sentence[450]. In (88), through association with a specific construction site, mentioned earlier in the pretext (*ha-bniya* 'DEF-construction'): the NP will have a weakly deninite or indefinite referential status, depending on the knowledge and intentions of the speaker. And in (89), referentiality is achieved through a description of the situation in which, as the participant of the communication understands, at the man's hand was an unknown but very specific object, the referent of which is encoded by a specific referential NP (*girzan ha-yad* 'hand DEF-axe'). The situational context, which makes it possible to establish the

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[448] Danon G. The Hebrew Object Marker and Semantic Type; Danon G. Case and Formal Definiteness: the Licensing of Definite and Indefinite Noun Phrases in Hebrew.
[449] Ibid.
[450] See, the concept of «associative definiteness» in 1.4.1.

specific referential status of this NP, forms a relevant denotative space in the minds of interlocutors, which allows the clear identification of the NP's referent. Unambiguous identification on the basis of the associative context presupposes the obligatory uniqueness of the referent within the relevant denotative context[451]. At the same time, the correlation of this denotative space with the physical context of the situation is not fundamentally significant, since the relevant denotative space is built in the minds of the speech act participants, and the referents mentioned in the discourse in one way or another correlate with the model of this reality[452].

Thus, construct states, coded with the definite article, the referents of which were not mentioned in the pretext and are not familiar from general knowledge (like «the sun»), can be indefinite-specific, weakly specific, and even specific referential, subject to the presumption of their existence and singularity in a common relevant denotative space formed in the minds of intrelocutors.

Therefore, it is possible to explain the marking of such indefinite and weakly definite specific NPs with definiteness indicators, and both the formal definite status of the NP and their referential status can serve as factors of obligatory object marking. Although we are inclined to believe that formal definiteness still play a decisive role in DOM of typical NPs, however, these indicators of determination, in turn, are due to the reference status of the NP.

3.1.2. Noun phrases with the *kol* quantifier

Another example that allows us to note the obvious correlation between the referential status of the NP and the method of their object marking is the variability of marking the universal pronoun *kol*, which encodes the referent independently and corresponds to the Russian pronoun *vsjo* 'everything'.

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[451] Kagirova V.A. Opredelennyy artikl' v sovremennom vostochnoarmyanskom yazyke: tipologiya i diakhroniya [Definite article in the modern Eastern Armenian language: typology and diachrony]. 26 p.

[452] Serdobolskaya N.V., Toldova S.Yu. Differential Marking of Direct object in Finno-Ugric Languages // Finno-Ugric Languages: Fragments of Grammatical Description. Formal and functional approaches. Moscow: Languages of Slavic cultures. 2012. S. 59-142.

In accordance with the L. Glinert's grammar, two forms of the pronoun can be used as a direct object: with a definite article (*ha-kol*) and without it (*kol*), but in both cases such an object is not marked[453] (90):

(90)   *ra'iti*   *(ha-)kol.*

     see.PST.1SG   (DEF-)all

     'I saw everything.'

In general, the use of two forms to indicate an unlimited set («all»), as well as the fact that object marking an object encoded by these form is almost always prohibited, is confirmed by the data of the HOT corpus[454]. The corpus also shows the tendency to regularly use the form *kol* as the head of a subordinate clause that formally limits an open set:

(91)   *e'ese*   *kol*   *še-*   *be-*   *yad-ai*

     do.FUT.1SG   all   that   in-   hands-POSS.1SG

     'I will do what(ever) is in my hands.'

(92)   *nisiti*   *kol*   *še-*   *be-*   *yexolt-i*

     try.PST.1SG   all   that   in-   power.GEN-POSS.1SG

     'I have tried (to do) everything in my power.'

Similar meaning of relative clauses is observed in all 6 contexts that use *kol*. The pronoun *ha-kol* also frequently encodes the Patient of the verb *'asa* 'do', but in most cases (9/10) does not take a subordinate clause, limiting the specified set in any way. Instead of a relative clause, the pronoun is followed by the purpose of the action expressed by the finite form of the verb, introduced by the conjunction *kdey* 'to', aswell as by the circumstance of the action or its beneficiary, encoded by the prepositional group. Oddly enough, the speech register does not seem to have a significant effect on the method of encoding the referent: *kol* – 4 in the formal register, 3 — in the informal, *ha-kol* – 6 in the formal register, 4 —in the informal.

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[453] Glinert L. The Grammar of Modern Hebrew. P. 94.

[454] In the HOG corpus, the independent us of the pronoun *kol* was not recorded.

Thus, it seems that none of these characteristics have an impact on DOM for the universal pronoun.

Of the 17 contexts including *kol/ha-kol*, only one (6%) is marked, and it uses the *ha-kol* form. On the one hand, the definite article, may seem to be a sufficient basis for accusative marking, however in the remaining 9 contexts, *ha-kol* is not marked, despite the indicator.   We see an explanation for this variability in different referential status of pronouns in these contexts. In 16 contexts, the status of the pronouns *kol/ha-kol is* universal, and only in 1 it is specific referential. It is precisely this single context (93) that is marked by *'et*.

In the description of the recipe for making a salad, the following statement is used:

(93) *kotsetsim*   *'et*   *he-'alim*   *u-me'arbevim*   *'et*   *ha-kol*

cut.PRS.MPL   ACC   DEF-leaves   and-mix.PRS.MPL   ACC   DEF-all

'(We) cut the leaves and mix everything.'

The pronoun *ha-kol* in (93) is anaphoric and indicates the ingredients listed earlier in the pretext. Accordingly, it receives a specific referential status, which, in our opinion, is precisely the factor that allows for an accusative marking.

Similarly, obligatory object marking is demonstrated by other NPs with the *kol* quantifier, which have a specific referential status (Table 12).

Table 12. Frequency of object marking in regards to noun phrases with the kol quantifier that have a specific referential status in the HOT corpus

Referential expression	Marked	%
kol ze 'all this'	7/7	100%
kol 'elu 'all these'	2/2	100%
kulanu/kulo 'all of us/all of it'	7/7	100%
kol 'exad me- 'every one of …'	1/1	100%
ha-kol 'everything'	1/1	100%
kol+NP(def.+)	106/107	99%
Total	**124/125**	**99%**

For most of the referential expressions in Table 12, it is not entirely clear to what extent the obligatory object marking is due to the specific referential status of the NP. Specific referential NP in this case, as we have state earlier, refers to a known set or object as a whole, and most of them in Hebrew will have a formal definite status, marked with indicators of definiteness. The data in Table 12 show an almost perfect match between specific referential NPs, definite NPs, and NPs subject to obligatory object marking (124/125). The only exception, namely a specific referential NP, which, however, was not marked with an accusative marker, was an NP in the website title. As mentioned in section 2.1, the «telegraphic style» of headlines and other texts requiring abbreviation may allow for the omission of an accusatory marker, which seems to have happened in this context. Therefore, it is difficult to determine which of the two factors (grammatical definiteness or specific referential status) regulate DOM for this category of referential expressions.

Let us consider the expression *kol 'exad me-* 'each of…'. In (94) this NP will be interpreted as a specific referential NP, since all the referents of the specified set are known from the pretext and the action of the transitive verb will affect each element of the set:

(94) *lenaseax*   *'et* *ktav* *ha-išum*
   formulate.INF   ACC document DEF-accusation
   'to formulate the indictment

   hi *bikša*   *lefaked* *'et* **kol** **'exad**
   she ask.PST.3FSG command.INF ACC all one
   she asked to charge **each one**

   me-arba'at *ha-ne'ešamim* *al-xelk-o*   *bilvad* *ba-paraša*
   of-four.GEN DEF-defendents for-part- POSS.3MSG only in-DEF-case
   of the four defendants only for his part in the case.'

Let us compare this context (94), where the referential expression refers to an individuated group of objects mentioned in the previous discourse, where each of the objects are affected by the action denoted by the verb of the transitive clause, and the following hypothetical context (95), in which the referential expression *kol 'exad me*-has a universal meaning and is not marked.

(95)   *kdey*   *še-kol*   *'exad*   *me-hem*   *yevi*

       to   that-all   one   of-them   provide.FUT.3MSG

       'in order for each of them[455] to provide

       rešimat   *šemot*   *«manhigey*   *ha-mexa'a»*

       list.GEN   names   leaders.MPL.GEN   DEF-protest

       a list of «protest leaders» names

       ve-ye'afyen   **kol**   **'exad**   **me-hem**

       and-describe.FUT.3MSG   all   one   of-them.MPL

       and to describe **each of them**'

In example (95), the speaker not only uses the context of the removed affirmation (the subjunctive mood and a hypothetical situation that the speaker considers unlikely, which is obvious from the context of the sentence), but also the set to which the expression «each of them» refers is not specific referential, despite the use of the definite article (*manhigey ha-mexa'a* 'the protest leaders'). As described above, the presence of the article does not necessarily imply a specific status of the NP, and in (95) the speaker uses an additional tool that indicates the indefiniteness of the referents, making it possible to interpret this set as an open extensional, — encloses this NP in quotation marks.

Thus, structurally identical NPs in examples (94) and (95) are marked differently.

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[455] This NP does not imply a specific group of persons known to the addressee from the context. The previous context makes it clear that it refers to indefinite circle of people with an open extension «in view» of the interlocutors: "Yes, it is likely that due to public policy *they* will become more open to disputes."

However, the HOT corpus demonstrates greater variability in the object marking of NP with the *kol* quantifier, in cases, where the relative pronoun *mi* or *ma* becomes the formal head of the relative clause, encoding the referent with a construction like «all that ...» / «all those who ...» (Table 13).

Table 13. Frequency of object marking in regards to constructions with the quantifier kol followed by a relative pronoun in the HOT corpus

Type of referential expression	Marked	%
kol mi še- 'all who …'	4/4	100%
kol ma še- 'all that …'	11/20	55%
Total	**15/24**	**63%**

Of the 4 marked referential expressions, including the pronoun *mi* 'who', 3 have specific referential status, and 1 — universal status. Whereas of the 11 marked referential expressions, including the pronoun *ma* 'what/that', 10 have a specific referential status, and 1 — universal status. Thus, on the one hand, we confirmed the hypothesis set out above, that the referential status of the NP is one of the factors regulating asymmetric DOM in Modern Hebrew. On the other hand, we suggetst that there is an additional factor that could explain why, according to corpus data, constructions that include the pronoun *mi* 'who' are marked several times more often than constructions that include the pronoun *ma* 'what/that'. Even though they are similar in structure, definiteness status and referential status[456]. We will address this issue below in section 3.2.

3.1.3. Partitive construction

Partitive construction is another interesting example of the influence that referential status of the NP has on the way of asymmetric object marking. In Chapter 2, we observed that the partitives demonstrates a high degree of optionality of asymmetric object marking, in general, and the highest degree of

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[456] In section 2.3.4, based on the data from the HOG corpus, we stated that there is a similar situation in regards to relative and interrogative pronouns (with no quantifier kol in the NP structure).

object marking for the category was recorded for formally indefinite NPs (75% (3/4) was marked). We also mentioned the study of A. Hacohen, O. Kagan and D. Plaut (2021), in which it was experimentally proven, that the «approval rate» of marked partitive constructions among participants (native Hebrew speakers) is 3.5-3.72 out of 5 points, according to the methodology proposed by the authors[457]. The results differed depending on the type of partitive construction and the method of object marking, but it is obvious that the level of acceptability for native speakers was approximately between 70-74%, which is very close to the result for the randomly taken partitive constructions recorded in the HOG corpus (75%).

A. Hacohen, O. Kagan and D. Plaut consider this issue according to formal syntax approach, relying on the research of the Israeli linguist G. Danon. As we specified in Chapter 2, G. Danon considers definiteness in Modern Hebrew to be a syntactic characteristic, which does not always correlate with semantic / pragmatic definiteness[458]. The authors, therefore, adhere to similar views, and although statistically the results of the experiments of A. Hacohen, O. Kagan, and D. Plaut match those obtained in this study based on the HOG corpus, we offer another explanation for the optional object marking of the partitive constructions, associated precisely with pragmatic factors and, above all, with the referential status of expressions encoding an O-participant of the situation.

Below, in Table 14 the obtained statistics of various partitive constructions object marking is presented in accordance to the HOT corpus data.

Table 14. Frequency of partitive constructions' object marking in the HOT corpus

Type of referential expression	Marked	%
NP with cardinal numbers	**58/76**	**75%**
'exad/'axat + PP(def.+) 'one of ...'	57/73	78%
šloša + PP(def.+) 'three of …'	0/3	0%

[457] Hacohen A., Kagan O., Plaut D. Differential Object Marking in Modern Hebrew: Definiteness and partitivity. Pp. 1-34.

[458] Danon G. Syntactic Definiteness in the Grammar of Modern Hebrew. Pp. 1071–1116.

NP with nominal quantifiers	2/79	3%
xelek + PP(def.+) 'part of ...'	2/77	3%
xelek + PP(indef.+) 'part of ...'	0/1	0%
xeci + PP(def.+) 'half of ...'	0/1	0%

First of all, these data show that, despite approximately the same number of recorded partitive constructions with cardinal numbers and with nominal quantifiers, NPs with cardinal numbers are marked much more often (58 *vs* 2, respectively). However, it is also obvious that the high frequency of marked partitive constructions within the first categorie is due to NPs with the numeral *'exad* 'one' (*'exad* is marked in 57/73 contexts, whereas *šloša* 'three' is not marked (0/3). Thus, we can draw two conclusions: on the one hand, for some reason, the partitive constructions with the numeral *'exad* acting as a direct object are frequently marked, and on the other hand, such regular marking, as well as very limited marking for other constructions, cannot be explained by grammatical definiteness of these referential expressions, since the head of each of the phrases oes not take a definiteness indicator, and the prepositional phrases (PPs)[459] are all definite, with one exception.

Let's consider these results from the standpoint of the referential status of the recorded NPs (Table 15).

Table 15. Frequency of partitive constructions' object marking relative to the «referential status» in the HOT corpus

Referential status	Marked	%
Referential NPs	**52/91**	**57%**
Specific referential NP	19/19	100%
Distributive referential NP	1/1	100%
Indefinite referential NP	19/34	56%

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[459] Formally, the definite status of the PPs could not in fact be the basis for the definiteness of the whole referential expression, in any case.

Weakly definite referential NP	13/37	35%
Non-referential NPs	**8/64**	**13%**

Based on the Table 15 data, referential NPs coding the O-participant of the situation, generally, are marked about 4 times more often than non-referential ones, and specific referential NPs, as well as possibly distributive referential, are subject to obligatory object marking. The latter fact, among other things, explains the high probability of object marking in regards to the referential expression *'exad me-* «one of...» (57/73, 75%), since this is the only one of the listed expressions, a significant percentage of which is interpreted as specific referential NPs (19/73, 26%). In this case, it is obligatorily marked with an accusative marker (19/19, 100%).

In the case of a specific referential use of a partitive construction, for example, *'exad me-* 'one of…', it is a description to which, in the speaker's opinion, only one specific object of reality corresponds. Thus, not only the presumption of existence and singularity, which is obligatory for the expression of a specific reference, is satisfied, but it also confirms that matching the denotative space with the physical space is not mandatory, since to choose a referential use of the description, it is sufficient for the speaker be sure that the specified referent is the only one corresponding to it.

(96)   *ha-'adam*   *ha-rišon*   *še-hirba*   *dagim*   *tropiim*

  DEF-person   DEF-first   that-breed.PST.3MS   fish   tropical

  'The first person to breed tropical fish

  be-'iropa   *haya*   *pyer karbonyer*   *še-hekim*

  in- Europe   be.PST.3MSG   Pierre Carbonnier   that-found.PST.3MS

  in Europe, was Pierre Carbonnier, who founded

  'et   ***'axad***   ***ha-****akvariumin*   *ha-ciburiyim*   *ha-rišonim*

  ACC   one.GEN   DEF- aquariums   DEF- public   DEF-first

  one of the first public aquariums

be-paris   *bi-šnat*   *1850*

in- Paris   in-year.GEN   1850

in Paris in 1850.'

In (96), the description *'axad ha-akvariumin ha-ciburiyim ha-rišonim* 'one of the first public aquariums' clearly indicates a referent that the speaker considers to be real and the only one that corresponds to this description. Therefore, the speaker makes a choice in favor of marking this referential expression, despite the absence of formal indicators of determination.

Interestingly, the referential expression *'exad me-* 'one of...' appears in some cases to be cataphoric, since the referent to which it points is first indicated not in the previous, but in the subsequent part of the discourse (97).

(97)   *macati*   *'et*   **'exad**   **mi-***misxake*   *ha-šana* —

        find.PST.1SG   ACC   one   of-games.GEN   DEF-year

        'I found **one of** the (best) games of the year —

        al **Into the Breach**   *kibalti*   *hamlatsot*   *od*   *be-merts*

        about Into the Breach   get.PST.1SG   recommendations   more   in-March

        (about) **Into the Breach** I got recommendations back in March.'

In example (97), we will also interpret the partitive construction as referential, satisfying, for the speaker, both the presumption of existence and the presumption of singularity. For that reason the speaker marks this referential expression with an accusative marker. But the speaker, obviously, cannot be sure that the addressee also identifies the referent implied by him with certainty, therefore, after this description, which has a weakly definite status, in the next statement there is an NP, indicating the referent directly: «Into the Breach». In the same way, apparently, a choice to mark a direct object is made in other examples of weakly definite referential NPs, 35% of which are marked by an accusative marker.

This method of encoding a new referent in discourse (in particular, with the help of attributive description, as in (97))[460], in termes of A.D. Shmelev, is called «clarifying identification»[461]. Taking into account the speaker's desire to clarify information about the new referent introduced into the discourse, it can be assumed that this referent will be important for the subsequent discourse, so the coding method mentioned above performs the so-called «introductive function»[462]. Thus, the direct object marker helps to additionally focus the addressee's attention on this referent, which has just been introduced into the relevant denotative space. The speaker's intentions, the communicative status of the NP, and topicality will be discussed in more detail below (section 3.4.).

It is important to note the fact that the distributive definiteness that arises in distributive referential NPs, presumably, requires obligatory object marking of such NPs. At the same time, distributive referentiality is often found in clauses where the relevant denotative space is not part of the physical reality to which the standard principles of 'true/false' assessment apply, in particular, in contexts with removed affirmativeness. But indication of such a hypothetical context involuntarily creates in the mind of the listener a model of reality, which becomes part of the relevant denotative space for the duration of communication. By marking NPs encoding abstract, non-specific referents, as required by the distributive definiteness of such referents, the speaker thereby puts them on the same plane as specific referents similarly encoded. This technique, judging by the

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[460] This method of encoding is represented in Modern Hebrew not only by partitive constructions, but is often used in relation to other types of NPs.

[461] A.D. Shmelev contrasts «clarifying identification» with «explanatory identification» of the object, when the speaker provides additional information about the previously mentioned referent, for example: «Charsky was one of the indigenous inhabitants of St. Petersburg» (Pushkin) (Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P. 188).

[462] Toldova S.Y., Serdobolskaya N.V. Namereniya govoryashchego i referentsial'nyye svoystva imennykh grupp [Speaker's intentions and referential properties of noun phrases] // Trudy mezhdunarodnogo seminara Dialog'2002. T.1. Teoreticheskiye problemy [Proceedings of the international seminar Dialogue'2002. T.1. Theoretical problems] / A.S. Narinyani (ed.) Moscow, 2002. URL: https://www.dialog-21.ru/en/digest/2002/articles/toldova/ (accessed 19.06.2023).

large volume of such contexts in the HOG corpus, is successfully used in advertising texts. For instance, (98) provides an example of an advertisement that demonstrates the advantages of cooperation with a certain company that organizes transportation in the moving process.

(98) *hat'ama.*   *simu*   *lev*   *ki*   *'atem*   *boxrim*

adaptability   put.IMP.PL   heart   that   you.PL   choose.PRS.MPL

'Adaptability. Please note that you choose

movil   **še-yaxol**   *levace'a*   **hat'ama**

mover   that-can.FUT.3MSG   arrange.INF   match

a moving company that can match

šel   **ha-cevet**   **ha-ciyud**   ve-**masa'it**   ha-hovala

POSS   DEF-**crew**   DEF-equipment   and-truck.GEN   DEF-transportation

the crew, the equipment and **the truck** [for] transportation

*la-**craxim***   *šela-xem*.

DAT-needs   POSS-2MPL

to **your needs**.'

The results of the analysis of some non-referential and non-specific NPs were quite unexpected. Such a status is characteristic for universal and generic NPs, as well as in the context of removed affirmation, for example, in imperative sentences, questions, with negation and modal words (*wants, should, can,* etc.)[463]. In such contexts, a single existing referent («Surely one of you knows him»)[464] may be meant, but this referent is not specific, much less known to interlacutors.

However, there are several examples in the HOT corpus where a referential expression encoding such a non-specific and obviously unknown referent using the partitive construction is marked by an object marker, however this happens only

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[463] Paducheva E.V. Vyskazyvaniye i yego sootnesonnost' s deystvitel'nost'yu [Statement and its correlation with reality]. P. 94, Paducheva E.V. Referential status of the noun phrase // Russian Corpus Grammar, 2017. [Electronic source] URL: http://rusgram.ru/new/chapter/label/Referential_status_of_a_noun_group/ (accessed 05/30/2023).

[464] An example of E.V. Paducheva. Ibid.

with one referential expression *'exad me-* «one / one of ...» (7/7, 100%). For example, in (99):

(99)　*le-xol*　　　　*ha-maxalot*　　*še-muc'ot*　　　　*ha-yom*　　*maspik*

　　　for-all　　　　DEF-diseases　that-offered　　　　today　　enough

　　　'For all the diseases that are offered today (in the clinics for verification), it is enough

　　　livdok　　　　*'et*　　*'exad*　*mi*-*bney*　　　　*ha-zug*

　　　check.INF　　ACC　one　of-sons.GEN　　　DEF-couple

　　　to check **one of** the spouses

　　　li-ršimat　　　*ha-bdikot*　　*ha-mumlecet*

　　　for-list　　　　DEF-tests　　　DEF-recommended

　　　against the recommended list (of) tests.'

In (99), the referential expression *'exad mi-bney ha-zug* 'one of the spouses' is used in the context of the removed affirmativeness. Even within the framework of this relevant denotative space, it is obvious that we are not talking about a specific referent, but, on the contrary, the referent «any of the spouses» is implied.

But, nevertheless, apparently, the singularity of the implied referent, obvious from the context, can become the basis for object marking the expression encoding it. This is indirectly confirmed by the fact that it is the expression that includes the numeral *'exad* 'one' in the NP's structure that demonstrates the highest probability of object marking in the partitive category in the HOT corpus (78%). Whereas the rest of the patitive expressions, that do not imply correlation with a single object, are either not marked *(šloša* – 0/3, *xeci* – 0/1), or marked very rarely (*xelek* – 2/77).

3.1.4. Demonstrative pronouns

In Chapter 2, we concluded that «definiteness» cannot be a licensing factor of DOM for the demonstrative pronouns *ze* (MSG) and *zot* (FSG), so it is necessary to consider this issue in more detail and assume the influence of other factors on the speaker's choice to code these pronouns.

In this section we will consider what can be the reason for DOM, from the point of view of the normative grammar of Modern Hebrew and based on the corpus data. In Modern Hebrew, the pronouns *ze, zot* (and less often *'ele* (CP)) can serve as both deictic and anaphoric pronouns. According to L. Glinert, for example, both *ze* and *zot* can refer to an inanimate (rarely and only in an informal register — animate) referent, or to a whole sentence[465]. However, coding a direct object, these pronouns, which, by default, have the same status from the standpoint of definiteness, behave differently. Referent encoded by the pronoun *ze*, according to the data of the HOG and HOT corpora, is subject to obligatory marking, whereas the referent encoded by the pronoun *zot*, in the vast majority of cases (in the HOT corpus 1/152 was marked[466]) is not marked (see the data of the HOG corpus in Table 6). One could assume a structural feature related to the historical development of Hebrew object marking, but, in our opinion, the system in this case is more complex.

The basis for variability, in our opinion, is the fact that the referents encoded by these pronouns are not homogeneous. The pronouns *ze* and *zot* do not simply indicate any specific object chosen from a set, but have additional features of meaning and distribution. For example, in colloquial Hebrew, the demonstrative pronoun *ze* (M) can replace the personal pronoun *hu* (M) to remove the ambiguity of the reference that may arise due to the fact that the pronoun *hu* (M) can potentially denote both participants in the situation[467] (100):

(100) *'ortenberg   pagaš   'et   'exad   mi-talmid-ai   le-še'avar*

  Ortenberg   meet.PST.3MSG   ACC   one   of- students-my   former

  'Ortenberg met **one of my former students**,

  noydek   ve-ze   siper   lo   še-hu   mexapes

  Нойдек   and-this   tell.PST.3MSG   him   that-he   seek.PRS.MSG

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[465] Glinert L. The Grammar of Modern Hebrew. P. 56.

[466] The only case where the referent encoded by the pronoun *zot* in the HOT corpus was marked by *'et* will be analyzed later.

[467] For more information about this topic, see, for example, Givón T. Syntax: A functional-typological introduction. 417 p.

Noidek, and **he** told him that he was looking for

'oved	še-ya'azor	lo	be-mif'al-o
worker	that-help.FUT.3MSG	him	in-factory-his

worker to help him in his factory.'

The pronoun *ze* in (100) indicates the second most activated referent («Noidek»)[468] . But this phenomenon is characteristic only for colloquial Hebrew. Most often, demonstrative pronouns encode the three types of referents described below.

First, the pronouns *ze*[469] 'this' (MSG) and *'ele* (CP) can encode a referent (or a group of referents – for *'ele* 'these') that is present in the physical context of the situation and uniquely identifiable by the participants in the speech act, but not mentioned in the previous context *(*101).

(101)	*(suzi*	*menasa*	*lehaklik*	*'et*	*ha-'ecba'ot)*
	Susie	try.PRS.FSG	snap.INF	ACC	DEF-fingers

'(Susie tries to snap her fingers)

	tatxil	*lispor*	*kše*	*tišma*	*'et*	**ze**.
	start.IMP.SG	count.INF	when	hear.FUT.2MSG	ACC	this

Start counting when you hear **this**.'

Moreover, these pronouns are usually not used to encode the human referent (instead, personal pronouns *hu, hi,* etc. are used), and in the case of such use, the statement acquires a pejorative meaning. Marking both pronouns in this case is obligatory[470].

Secondly, the pronouns *ze, zot* and *'ele* can act as anaphoric, and in this case the pronoun used is consistent with the gender of the specified noun (102).

(102)	*efšar*	*lekabel*	*'et*	*ha-matkon*	*šel*	*batista*

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[468] Compare the pronoun *tot* 'that' in Russian: *Syn ne rešilsya raskazat' otcu ob etom proišestvii, čtoby tot ne nakazal jego* 'The son did not dare to tell his father$_i$ about this incident, so that he$_i$ would not punish him.'

[469] *Zot* is not usually used in this context.

[470] This fact is another argument to prove that animacy is an important factor of DOM in Modern Hebrew for certain referential expressions types, as will be discussed in 3.2.

possible	get.INF	ACC	DEF-recipe	POSS	Batista

'Can (we) get Batista's recipe,

bevakaša	*kdey*	*še-nuxal*	*lenasot*
please	to	that-can.FUT.1PL	try.INF

please, so that we could try

'et	*ze*	*ba-bayt.*
ACC	this	in.DEF-house

it at home.'

This use is common for colloquial Hebrew, which is confirmed by the corpus data (10/10 in the HOT corpus — in the informal register), and is used to express the contrast between several referents known from the verbal or situational context, or to focus the addressee's attention on a specific referent[471] (for example, in (102), the speaker implies that he would like to try to cook *exactly* this recipe, although several recipes were mentioned in the pretext). Normative grammar requires obligatory object marking of such referents[472], both encoded by the *pronoun ze* and the pronoun *zot*.

Finally, the third type of referents, which can be encoded by demonstrative pronouns, are *propositional referents,* i.e. propositions mentioned in the pretext, the reference to which is encoded by the corresponding pronouns. Propositional antecedents are encoded only by the pronouns *ze* and *zot*[473]. Sometimes a specific pronoun is consistently used in idioms, for example, in oral speech (often at hesitation points) *'eix 'omrim 'et **ze*** 'how to say it' (lit. 'how they say it'), when a person hesitates in choosing words, or wants to leave the impression of hesitation.

L. Glinert, points out that the factor that distinguishes the use of these pronouns to refer to propositional antecedent may be the register of speech —

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[471] Kibrik A.A. Fokusirovaniye vnimaniya i mestoimenno-anaforicheskaya nominatsiya [Focusing attention and pronoun-anaphoric nomination] // Voprosy yazykoznaniya [Questions of Linguistics]. 1987. No.3. Pp. 79-90.

[472] Glinert L. The Grammar of Modern Hebrew. P. 56.

[473] Ibid. Pp. 56-58.

formal for *zot* and informal — for *ze*[474]. This observation, however, cannot be unambiguously confirmed by both research corpora. Despite the fact that both pronouns, indeed, are predominantly used in the register indicated by Glinert (90% in the informal register for *ze* and 69% in the formal register for *zot* in the HOG corpus), the frequency of their use in the uncharacteristic register (10% and 31%, respectively) indicates that, apparently, in Modern Hebrew the restriction to use these pronouns to code objects in certain type of register, observed by L. Glinert in 1989, gradually becomes less rigid, and the two pronouns begin to mix in speech.

Thus, in a generalized form, the correlation between distribution of demonstrative pronouns encoding an object, and their object marking can be reflected as follows (Table 16):

Table 16. Frequency of object marking of demonstrative pronouns: summary data

Referential expression type	Colloquial	Formal	Marked
Deictic pronoun	*ze*	*ze*	+
	'ele	*'ele*	+
Anaphoric pronoun	*ze*	*ze*	+
	zot	*zot*	+
	'ele	*'ele*	+
Pronoun encoding propositional antecedent	*ze*		+
		zot	—

The data in Table 16 show that referents encoded by pronouns *ze* and *'ele* require obligatory object marking, regardless of what type of referent they encode. Whereas referents encoded by pronoun *zot* show more variability. Moreover, the way of marking an object encoded by demonstrative pronouns (including *'ele*)

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[474] Ibid.

depends on the type of referent they are encoding. If pronoun *zot* encodes a propositional antecedent, object marking is prohibited.

This principle is confirmed by the HOT corpus data, and offers an explanation as to why the marking of the pronoun *zot,* prohibited in 151 contexts in the HOT corpus, is marked in 1 case. The context, where pronoun *zot* is marked by the accusative *'et* is the only one in the HOT and HOG corpora, in which *zot* refers not to a propositial antecedent, but to an NP activated in the pretext (103):

(103) *im   mahut   ha-'adam   hi   'alimut   lemašal*

    if   essence.GEN   DEF-human   COP   violence   for example

    'If the human essence (is), for example, violence,

    *yeš   ledake   'et   **zot**   gam   be-koax*

    must   suppress.INF   ACC   this   even   in-force

    (we) have to suppress **it**, even by force."

Thus, in the process of speech, faced with the need to make a referential choice in order to encode the referent activated in the discourse using the demonstrative pronoun, the speaker makes a choice based on the following parameters: 1) the type of referent being coded, and the way it is encoded in the discourse (NP / proposition), 2) grammatical characteristics of the NP encoding this referent in the previous discourse (gender and number, if we are talking about a referent, encoded by NP), 3) speech register. Marking of a demonstrative pronoun encoding a direct object activated in the previous discourse, or in a situational context, and uniquely identifiable by all participants of the speech act is, therefor, obligatory. The exception is a combination of two factors that create a limitation on object marking: the structural characteristic of the pronoun as the pronoun *zot* (FSG), and the type of referent denoted by it: the propositial antecedent.

Thus, in section 3.1 we have proved the correlation of the «referential status» factor, and the way of encoding the O-participant of the situation in the transitive clause in Modern Hebrew (see, Table 11), and also, taking this factor

into consideration, we have analyzed various types of referential expressions encoding a direct object, recorded in the HOT corpus. The results of the analysis are shown in Table 17[475].

Table 17. Influence of definiteness and referential characteristics on marking the referential expressions demonstrating optional object marking: summary

Expression type	Definiteness	Referential characteristics	
		Relevance	**Characteristics**
Construct State	+	++	Referential / non-referential status
kol/ha-kol	—	++	Universal / specific referential status
kol with NP *kol 'exad me-*	+	+	Universal / specific referential status
kol with demonstrative pronoun	+	+	Only specific referential status
kol with relative pronoun	—	++	Universal / specific referential status
Partitive	+/-	+	Specific referential and distributive / indefinite, weak definite and non-referential status
NP with a cardinal number			Singular / non-singular object
Demonstrative pronoun	—	++	Nominal / propositional antecedent

3.2. Animacy

Based on the Biblical Hebrew language data, it was suggested that demonstrative pronouns are especially sensitive to the animacy of the referent[476].

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[475] Legend for the table: «+» this factor has an impact, «++» the influence of this factor allows to explain the previously identified inconsistencies of data, «+/-» the influence of this factor is likely, «-» the influence is not recorded, or impossible by default.

This assumption, originally put forward by M. Malessa, was confirmed on the basis of corpus data by P. Beckins, who found that demonstrative pronouns indicating the referent «person» are marked in the Biblical Hebrew prose in 100% of cases, while pronouns related to abstract objects (including those expressed by a clause, not NPs) are marked irregularly[477].

Below we will consider the correlation between the referents' animacy and the frequency of object marking referential expressions encoding them in Modern Hebrew (Table 18)[478].

Table 18. Correlation between the «referent's animacy» parameter and object marking (according to the HOG and HOT corpora) (p-value for each of the corpora < .00001): summary

Referent type	HOG corpus		HOT corpus	
	Marked	**%**	**Marked**	**%**
Animate referents	65/68	96%	133/170	78%
Inanimate referents	511/1080	47%	267/752	36%
Total	576/1148	47%	400/922	43%

As was observed earlier for the «referential status» factor (see section 3.1.), it is very difficult to establish exactly to what extent the referent's animacy licenses the marking of definite and indefinite NPs encoding a definite referent. Mainly because many of the referential expressions encoding the animate referent are also subject to obligatory object marking according to the formal definiteness of the NP, and/or referentiality. For example, the forms of the quantifier *kol* with pronominal suffixes (3PL, 1CP) indicating the referent (*kulanu* 'all of us', *kulam* ('all (people)/everybody') encodes only animate referents, but in addition it also has a definite status (due to the defiteness indicator), and is a specific referential

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[476] Malessa M. Untersuchungen zur verbalen Valenz im biblischen Hebräisch. 248 p.,   Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. 287 p.

[477] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. P.116.

[478] Data on referential expressions that refer to propositional antecedents are excluded from the table below, due to their lack of the «animacy» characteristic.

NP (4/4 are marked in the HOT corpus). Therefore, the degree of influence each factor has at the time of the speaker's choice to mark an object a certain way remains unclear.

However, the influence of the animacy factor may explain some inconsistencies in the asymmetric DOM for those types of referential expressions that demonstrate optional object marking, or have a definite status which, as shown in Chapter 2, does not directly correlate with the object marking. The influence of this factor will be particularly important for interrogative and relative pronouns, that demonstrated a high degree of object marking variability (33% and 67%, respectively) on the HOG corpus data (see 2.3.4.), which is impossible to explain by the influence of the definiteness factor, interpreted as the presence / absence of formal defiteness indicators.

3.2.1. Interrogative pronouns

The pronouns *mi* 'who' and *ma* 'what/that' are contrasted with each other due to the semantic opposition «animate / inanimate», which in Modern Hebrew, in essence, boils down to the opposition «relating to a person / relating to a non-person» (104-105).

(104) *’et   mi   tazmin   la-xafla?*

     ACC   who   invite.FUT.2MSG   to.DEF-party

     '**Who** will you invite to the party?'

(105) *ma   ze   mištane?*

     what   this   change.PRS.MSG

     'What does it change?'

The thesis about DOM in regards to interrogative pronouns *ma* 'what' and *mi* 'who' being regulated by the referent's animacy, as well as the fact that this factor is relevant to the frequency of overt object marking, in general, was

convincingly proved by P. Beckins based on of the Biblical Hebrew language data[479].

Based on the Modern Hebrew data, this thesis does not find refutation, both in grammatical descriptions[480] and according to the HOT corpus (Table 19).

Table 19. Frequency of interrogative pronouns' object marking in the HOT corpus

Referential expression	Marked	%
Interrogative pronoun *mi* 'who'	30/30	100%
Interrogative pronoun *ma* 'what'	1/62	2%
Total	31/92	34%

Statistical data allow us to confidently state that the main factor licensing asymmetric DOM in Modern Hebrew in regards to direct objects encoded with interrogative pronouns is «referent's animacy»[481].

However, despite the rather strict distribution of marked and unmarked objects between the two pronouns (*mi* is marked obligatory, marking of *ma* is almost strictly prohibited), 1 context with the pronoun *ma* demonstrates a deviation from the above principle, which suggests the presence of an additional factor licensing optional marking for the interrogative pronoun, encoding an inanimate referent. This issue will be discussed in more detail below in 3.4.

3.2.2. Relative pronouns

As mentioned in 2.3.4., pronouns *mi* and *ma* can also act as relative pronouns that act as heads of relative clauses. The distribution of marked and

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[479] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. 287 p.

[480] Note, that grammatical descriptions mentioned in 2.3.4. postulate the variability of object marking for these pronouns, but do not name «animacy» as a factor of variation (see, for example, Glinert L. The Grammar of Modern Hebrew. Pp. 270-279).

[481] Alekseeva M.E. Odushevlennost' i referentsial'nyy status kak faktory asimmetrichnogo ob"yektnogo markirovaniya v sovremennom ivrite (na primere voprositel'nykh i otnositel'nykh mestoimeniy) [Animation and referential status as factors of asymmetric object marking in Modern Hebrew (on the basis of interrogative and relative pronouns)] // Litera. 2023. No. 6. P. 214.

unmarked objects encoded with the relative pronouns *ma* and *mi* in the HOT corpus is shown in Table 20.

Table 20. Frequency of relative pronouns' object marking in the HOT corpus

Referential expression	Marked	%
Relative pronoun *mi* 'who'	67/79	85%
Relative pronoun *ma* 'that'	33/50	66%
Total	100/129	78%

Obviously, despite the animacy factor, which as was proven in 3.2.1., is the most relevant factor licensing obligatory object marking of interrogative pronoun *mi* 'who' encoding animate referents, for relative pronoun *mi* this factor does not license the obligatory marking of an object (67/79, 85%). Moreover, significant variability (33/50, 66%) is also observed for object marking of pronoun *ma,* encoding inanimate referents.Therefore, we can assume the existence of additional factor (or several factors) influencing the marking of direct object in such cases.

This factor cannot be the grammatical definiteness of the referent, since there are no formal definiteness indicators for relative pronouns.

The «animacy» parameter, which is the main factor licensing object marking for the interrogative pronouns *mi* and *ma*, seems to be less significant for relative pronouns[482].

The limitation of object marking for this type of referential expressions may be due to a more subtle mechanism that reflects the speaker's opinion about the reality/unreality of the referent within the relevant denotative space, i.e. due to the referential status parameter discussed above in 3.1. At the same time, object marking of relative pronouns, as well as for other categories studied above, requires compliance with the presumption of *existence* and *singularity* of the specified referent. Even if these characteristics are not an indisputable fact, but are

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[482] The significance level (p-value) is still within acceptable values for recognizing the significance of the animacy parameter (p-value .012654 < .05), but it is much less significant for relative pronouns than for interrogative pronouns, for which the significance level of the «animacy» factor is < .00001.

modeled by the speaker's idea of reality. Let us compare examples (106) and (107) below:

(106) *karati*   *le-milcarit*   *ani*   *roca*   *lehazmin*
       call.PST.1SG   for- waitress   I   want.PRS.FSG   order.INF

       'et   **ma**   **še-hu**   **hizmin**!
       ACC   what   that-he   order.PST.3MSG

       'I called the waitress: 'I want to order **what he ordered**!''

(107) *hem*   *yexolim*   *liftoax*   *po*   *'ohel*
       they.M   can.PRS.MPL   open.INF   here   tent

       'They can open a tent here

       be-'emca   *ha-šxuna*   *ve-lehatxil*   *levašel,*
       in-middle.GEN   DEF-block   and-start.INF   cook.INF

       in the middle of the block and start cooking,

       lišxot   *kan*   *parot*   *ve-la'asot*   *'et*   **ma**
       slaughter.INF   here   cows   and-do.INF   ACC   what

       slaughter cows here, and do **what**

       še-hem   **'osim**   **šam**   *(be-atyopiya)!*
       that-they.M   do.PRS.MPL   there   in-Ethiopia

       they do there (in Ethiopia)!'

In example (106) we see the deictic use of the pronoun *ma,* since it clearly indicates a specific referent known from the situational context and, possibly, from the previous discourse, uniquely identifiable by the participants of communication. Example (107) shows the opinion of a resident of the Bar Yehuda district in Kiryat Malachi about members of his community, immigrants from Ethiopia. Referent of the description «what they do there», in general, can hardly be recognized as specific, uniquely identifiable by all participants in a communicative situation, especially if it is mentioned for the first time in the discourse (as it happens in this case). However, the speaker in this context is convinced that there is a definitive

set of actions of all the inhabitants of Ethiopia (which causes indignation and other negative emotions, obvious from the context of the sentence), which, in his opinion, is sufficiently specific and obvious to all members of the communication to mark the corresponding referential expression with an accusative marker.

Similarly to other referential expressions, relative pronouns that have distributive definiteness status in a given relevant denotative space are encoded as specific referential, i.e. «really existing» and uniquely identifiable, and, therefore, are marked, acting as a direct object (108).

(108) *le-tsaʻar-i*   *ha-ʻovdim*   *lomdim*

to-unfortune-POSS.1SG   DEF-workers   learn.PRS.MPL

'Unfortunately, the workers learn

maher   me'od   še-yoter   mištalem   la'asok

fast   very   that-more   profitable   do.INF

very fast, that (it is) more profitable to do

be-'avodot   mešek   bayt.   hem   memaharim

in-work.GEN   property.GEN   house   they   hurry.PRS.MPL

housework. They (are in a) hurry

lintoš   'et   mi   še-hevi

abandon.INF   ACC   who   that-bring.PST.3MSG

to abandon (the one) **who brought**

'otam   la-'arec

ACC.3MPL   to-DEF-country

them to the country…».

In the context of (108), it is impossible to unambiguously identify the referent of the description «the one who brought them to the country», and correlate it with a specific person, in part because different workers (probably in groups) were «brought» by different employers. However, in this specific context, a model of reality is built, where for each worker «brought» to Israel, there is a single employer who provided him with entry into Israel. This leads to the

presumption of existence and singularity of the referent. Thus, within the framework of this denotative space, the attributive description *mi še-hevi 'otam la-'arec* has a distributive (referential) status and, accordingly, is marked as a direct object.

A special case of relative pronouns' referential use is also the *context of pseudo-dialogue*, in which the speaker addresses the audience as an immediately present member of the communicative act. In these cases, non-real situations with various referents related to the audience (or to the generalized group «speaker + audience», realized through the use of the pronouns «we», «our», etc.) are interpreted as real, i.e. form a *model of reality* in which the speaker addresses directly to the real interlocutor, and the referents mentioned in this context acquire a referential status and, accordingly, are marked. In example (109), a commercial website publishes recommendations on what exactly should be purchased as a gift for one's mother.

(109) *tuxlu*   *lehištatef*   *ve-lirxoš*   *la*
       can.FUT.2PL   participate.INF   and-buy.INF   her
       'You can (all) participate, and buy her

       matana   *yekara*   *ve-'eHutit,*   *kax*   *yihye*   *la-xem*
       gift   expensive and-high-quality   so   be.FUT.3MSG   to-you.PL
       expensive and high-quality gift, so (it) will be for you

       harbe   *yoter*   *kal*   *lirkhoš*   **'et**   **ma**
       much   more   easy   buy.INF   ACC   what
       much easier to buy **what**

       še-be-'emet   **rcitem**.
       that-in-truth   want.PST.2MPL
       you really wanted.'

Despite the fact that the text in (109) is addressed to an infinite number of potential buyers, each of whom will have a different referent of the description *'et ma še-be-'emet rcitem* 'what you really wanted', the context implies the singularity

of the referent for each buyer, and such distributive definiteness apparently allows for an object marking with an accusative *'et*.

The analysis of corpus data also showed that an important factor in determining the referential status of relative pronouns is the speaker's overt or implicit indication of certainty / uncertainty about the reality of certain referent, or his expression of doubt about the fact of its existence. For example, the use of restrictive constructions («at least in our humble opinion»), as well as other phrases expressing doubt («I don't know if this is true»), or denying the reality of what was said above («although I don't think so») quite regularly correlates with the non-referential use of relative pronouns.

Following the observed trend, the referential status of relative pronouns in this study was determined, among other things, based on the degree of the speaker certainty in the reality of the referent in accordance with the following classification: the referential status was assigned if the referent was denoted as real for the speaker, non-referential — if the speaker identified it as «unreal», or expressed doubt about its reality.

This approach resulted in the confirmation that the correlation between the referential status of relative pronouns and the frequency of their object marking was statistically significant[483] (Table 21).

Table 21. Correlation of the «referential status» parameter and relative pronouns' object marking (according to the HOT corpus) (p-value < .00001)

Referential status	Marked	%
Referential status of a relative pronoun	100/106	94%
Non-referential status of a relative pronoun	0/23	0%

Despite the obviously high level of interdependence[484] between the variability of object marking and the referential status of the descriptions under

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[483] Alekseeva M.E. Odushevlennost' i referentsial'nyy status kak faktory asimmetrichnogo ob"yektnogo markirovaniya v sovremennom ivrite (na primere voprositel'nykh i otnositel'nykh mestoimeniy) [Animation and referential status as factors of asymmetric object marking in Modern Hebrew (on the basis of interrogative and relative pronouns)]. P. 217.

consideration, the combination of two licensor factors, namely the referential status and the animacy of the referent, allows us to obtain even more unambiguous results (Table 22).

Table 22. Correlation of «referential status» and «animacy» parameters with relative pronouns' object marking (according to the HOT corpus) (p-value < .00001)

Referential status	Marked	%
Referential (animated referent)	67/67	100%
Referential (inanimate referent)	33/39	85%
Non-referential (animated referent)	0/12	0%
Non-referential (inanimate referent)	0/11	0%

The data shown in Table 22 clearly demonstrate that the highest (100%) probability of object marking is observed for descriptions that are referential and encode an animate referent: they are marked in 100% of contexts (67/67). Referential descriptions encoding an inanimate referent have a slightly lower probability of object marking at 85% (33/39), while object marking of non-referential descriptions encoding both animate and inanimate referents is progibited (0/12, 0/11, respectively).

It is the influence of the second factor, the referential status, which explains the difference in interrogative and relative pronouns' object marking, identified in 3.2.1.-3.2.2: asymmetric DOM of interrogative pronouns isregulated, in the vast majority of cases, only by the parameter of referent's animacy status (100% marking for animate (30/30), and 2% for inanimate (1/62))[485], while for relative pronouns DOM is regulated by a combination of two parameters: «referential status» and « referent's animacy».

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[484] This is confirmed by the parameter «significance level» (p-value < .00001).

[485] The factor licensing DOM in a single context that deviats from the stated principle, amounting to 2% of the discrepancy, will be discussed below.

3.3. Identifiability and givenness of the referent

In Chapter 1, we examined in detail one of the main factors to regulate DOM, according to research, namely «identifiability», which can be defined as the ability of the listener to identify the referent of the referential expression used in the discourse. Usually, this parameter is measured by distinguishing between «given» and «new» referents of discourse, but E. Prince[486] proposed an extended scale with four degrees of referents' identifiability (12), which can be summarized as follows:

(110) E. Prince's Identifiability Scale:

Evoked > Inferrable > Unused > Brand new

Evoked referents, i.e. mentioned earlier in the discourse, are the easiest to identify. As a rule, referents that are not mentioned in the discourse are introduced by an indefinite NP (*blog* 'blog' in (111)), and the evoked ones are subsequently encoded by a definite NP (*ha-blog* ('the blog') in (111)) or by a pronoun.

(111) *ba-rega* *še-'atem* *maxlitim* *liftoax* ***blog***,
in.DEF-moment that-you.MPL decide.PRS.MPL open.INF blog
'The moment you decide to start a blog,

kedai *kodem kol* *lehavin*
should first of all understand.INF
first of all, (you) should understand

ma *ha-matara* *šel* ***ha-blog***
what DEF-purpose POSS DEF-blog
what (is) the purpose of **the blog**.'

The data of the HOT corpus demonstrate that there is a statistically significant correlation (p-value <.00001) between the referent's status in the discourse and the object marking of the referential expression encoding it (Table 23). Namely, the referents mentioned in the previous discourse are marked with a much higher probability (89% *vs* 43% for new referents).

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[486] Prince E. Toward a taxonomy of given-new information. Pp. 223-255.

Table 23. Correlation between referent's status in discourse and object marking of the referential expression encoding it (HOG corpus) (p-value < .00001)

Referent's status in discourse	Marked	%
Referent mentioned in the previouse discourse	168/189	89%
Referent not mentioned in the previouse discourse	423/991	43%

However, as was mentioned above (in 1.4.1. and later), anaphoric familiarity, i.e. «discourse-old» status of the referent, is not a prerequisite for encoding this referent as a definite NP. Familiarity can also be *associative,* i.e. based on both anaphoric and semantic connections with another referent used in the pretext, as well as deictic, *or situational,* determined by the conditions of communication. Along with the latter, there is also the familiarity of an object belonging to the general knowledge of the speaker and the listener, called *apperception* familiarity[487] (112).

(112) *tafkid-o*   *šel*   *ha-ʻirua*   *ha-opozicioni*   *hu*

      task-POSS.3MSG   POSS   DEF-event   DEF- opposition   COP

      'The task of the opposition event (is)

      bediyuk   *kaze*   *lehacig*   *'et*   **ha-mciut**

      exactly   like that   present.INF   ACC   DEF-reality

      exactly that: to present reality

      be-ofen   *yašir*   *pašut*   *alternativi*

      in-way   direct   simple   alternative

      in a direct, simple, alternative way.'

Even without being mentioned in the previous discourse, the referent of the NP *ha-mciut* (DEF-reality) 'the reality' is immediately recognizable to the addressee. Such NPs will be classified as «unused» on the E. Prince's Identifiability scale (110).

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[487] Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P. 74.

However, more indicative than the E. Prince's Identifiability scale is the Givenness hierarchy[488] (13), which offers a detailed algorithm for analyzing the cognitive status of referents in discourse (1.4.2.).

(113) Givenness hierarchy:

In Focus > Activated > Familiar > Uniquely Identifiable > Referential > Type Identifiable

This hierarchy reflects the degree to which the referent is present in the memory of intelocutors. Each level of the hierarchy is characterized by a specific type of referential expression. Personal pronouns, as well as object pronouns, if we are talking about referents coding a direct object, in Modern Hebrew will encode the referents in focus of interlocutors' attention, activated referents will be encoded with demonstrative pronouns, NPs with demonstrative pronouns (art.+) (for example, *ha-sefer ha-ze* 'DEF-this DEF-book', 'this book') and, less commonly, just NP with the definite article. A familiar referent, i.e. the one that some time ago was in the focus of attention of the speakers or was activated, and at the time of speech can still be identified by the addressee, but is not in the focus of attention, in our opinion, tends to be coded by an NP with a demonstrative pronoun not preceded by a definite article (for example, *sefer ze* 'this book'), although it can also be encoded by an NP with definite determiners.

Referential expressions such as *sefer ze* (NP + DemPro(art.-)), as well as their object marking, were studied in secton 2.3.1. The study has shown, that HOG corpus data confirmed the thesis postulated in grammatical descriptions that, coding a O-participant of the situation in a transitive clause, such NPs are not marked with an accusative (HOG: 0/8). Such a juxtaposition of noun phrases with NP + DemPro(art.-) type of structure, that avoid object marking, to obligatorily marked noun phrases of the NP + DemPro(art.+) type raises legitimate questions

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from researchers[489]. However, in our opinion, the *lower status of the referent in the Givenness hierarchy*, i.e. the appearance of «potential interference» in the zone of interlacutors' attention (according to the terminology of T. Givón) between the polydefinite *ha-sefer ha-ze* ('DEF-book DEF-this') that attracts attention and the expression *sefer ze* ('this book'), which is much less «noticeable» in discourse, can explain the lack of marking of the second expression. Especially if we also take into account other discourse-pragmatic features of this type of referential expressions, which will be discussed below.

Uniquely identifiable referents in discourse are most often encoded using various types of NP with the definite article (with the exception of NP + DemPro(art.+) construction, which was named above as an indicator of an activated referent).

The lowest degree of «givenness» in this hierarchy is attributed to referents of the «*type identifiable*» as called by the authors, i.e. objects that only require the speaker to use an indefinite NP, and to interpret their referents in the discourse it is enough to be familiar with the class of objects referred to.

Taking into account the names of the categories, and having analyzed in 3.1.-3.2. correlation between asymmetric object marking and referential status, it is logical to assume that the Givenness hierarchy, which makes it possible to determine the degree of identifiability of the referent in discourse, should correlate with the parameter «referential status».

The data reflected in Table 24 below generally confirm this conclusion, although the relationship between the degree of givenness of the referent in the discourse and the referential status of the referential expression encoding it cannot be called exact[490].

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[489] Glinert L. The Grammar of Modern Hebrew. Pp.96-97; Wintner Sh. Definiteness in the Hebrew Noun Phrase. Pp. 319-363.

[490] Explanations of abbreviations in Table 24: SpR - specific referential status, gen. - generic, univ. — universal, attrib. — attributive, NR —non-referential.

Table 24. Frequency of object marking relative to discourse and referential status of the noun phrases in the HOG corpus

Discourse and referential status	Marked	%
In Focus (SpR)	122/122	100%
Activated (SpR)	201/204	99%
Familiar (SpR)	120/128	94%
Uniquely identifiable (SpR, gen., univ., atrib.)	203/221	92%
Referential (gen., univ., attrib.)	54/157	34%
Type identifiable (NR, attrib.)	17/481	4%

Thus, the corpus data make it possible to identify a clear boundary between: 1) obligatory object marking for the most accessible referents in the memory of interlocutors, with the status «in focus» (100%) and «activated» (99%), 2) high probability of object marking for referents that have left the focus of attention, but are still stored in memory in the status «familiar» (94%), and for those not mentioned in the previous discourse, but unambiguously identifiable referents (92%), and finally, 3) a low probability of object marking of referential[491] (34%) and non-referential NPs (4%).

We will now turn to the proposed earlier hypothesis, that a referential expression of the «NP + DemPro(art.-)» type (*sefer ze* 'this book') is not necessarily interpreted as a specific referential NP, identical in properties and meaning to an NP, coded with a definite article of the NP + DemPro(art.-) type (*ha-sefer ha-ze* 'DEF-this DEF book'), but will differ from the latter in the degree of givenness of the referent encoded by it in the discourse.

Sometimes it is suggested that the restriction on the distribution of these types of NPs with demonstrative pronoun (with an article and without one) is the register of speech, i.e. the NP with the definite article gravitate towards the colloquial register, and without one — towards the formal register. This assumption, according to the corpus data obtained, is indeed justified, but does not

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[491] Not specific referential, but generic, universal and attributive NPs.

directly correlate with the variability of object marking. In particular, according to the HOT corpus, it is true that only 4% (8/223) of constructions of the NP + DemPro(art.-) type are used in the informal register, but the speech register cannot be considered a factor licensing object marking directly.

This conclusion is based, in particular, on the fact that in the HOT corpus there are numerous examples of these two types of constructions occurring in texts of the same style within one or two propositions from one another (114).

(114) *be-marbit*   **ha-sibuxim**   **ha-kalim**   **ha-'elu**   *nitan*

in-most   DEF- complications   DEF-minor   DEF-these   possible

'Most of these minor complications (it is) possible

letapel   *be-lo koši.*   *'aval*   *ha-**sikun***   *le-sibuxim*

take.care.INF   in-no.difficulty   however   DEF-risk   for-complications

yoter   ***recinim***   *kayam.*   *kol*   *'axat*

more   serious   exist.PRS.3MSG   all   one.F

to handle without difficulty. However, (there is a) risk of more serious complications. Any (woman)

še-šokelet   *la'avor*   *SRS*   *xayevet*

that-consider.PRS.FSG   undergo.INF   SRS   must

who considers undergoing SRS (operation), must

lehavin   ***sikunim***   *'ele*.

understand.INF   risks   these

understand these risks.'

In (114), a proposition that includes an NP+DemPro(art.-) type construction, *sikunim 'ele* 'these risks', does not immediately follow the first mention of the referent *sikun le-sibuxim yoter recinim* 'risk of more serious complications'. Between them, the speaker includes a proposition with the SRS referent «SRS (operation)» already activated in the previous discourse, thereby retracting the non-specific referential NP *sibuxim yoter recinim* 'more serious complications' to the

background, and reducing the likelihood of its object marking based on the referent's givenness status.

Moreover, the referential distance[492] between the NPs encoding the referent often exceeds one (or even several) proposition: (115) and (116).

(115) *roce*　　　　*lehasbir*　　*ki*　*hazmanat*　**sratim**　**betašlum**
　　　 want.PRS.MSG　　explain.INF　　that　order.F.GEN　films　　for a fee
　　　 'I want to explain that ordering **films for a fee**

　　　 yexola　　　　　*lehe'asot*　　*'ax*　　*ve-rak*　　　*be-'emca'ut*
　　　 can.PRS.FSG　　made.INF　　only　　and-only　　in-help.GEN
　　　 can only be carried out with the help (of)

　　　 kod　　*sodi*　　　　　*'ašer*　　*nivxar*　　　　　　*'al*　*yedey*
　　　 code　　secret　　　　　that　　chosen.PRS.MSG　　　on　　hands.GEN
　　　 a secret code that is chosen by

　　　 ha-lakoax　　*ve-kax*　　*hu*　　*o*　　*mi*　　*mi-ta'am-o*
　　　 DEF-client　　and-thus　　he　　or　　who　　from-taste-POSS.3MSG
　　　 the client, and thus he or someone on his behalf

　　　 še-nimsar　　　　　*lo*　　*ha-kod*　　*ha-sodi*
　　　 that-given.PST.3MSG　　to him　DEF-code　DEF-secret
　　　 (to whom the secret code was given)

　　　 yexolim　　　　*lehazmin*　　**sratim**　　*'ele*
　　　 can.PRS.MPL　　order.INF　　films　　　these
　　　 can order **these films**.'

(116) *yeš*　　**našim**　　*'ani*　*muxana*　*leha'id*　　*'al kax*
　　　 exist　　women　　I　　ready　　testify.INF　　about this
　　　 '(There are) **women**, I'm ready to testify to this

　　　 be-beyt　　　　*mišpat*　*yeciratiyot*　　　*yoter*　*mi-gvarim*
　　　 in-house.GEN　　trial　　resourceful.FPL　　more　　from-men

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[492] The issue of reference distance will be discussed in more detail below, in 3.4.

in court, more resourceful than men.

'ani	*yoda'at*	*še-ha-gvarim*	*lo*	*ma'aminim*
I	know.PRS.FSG	that-DEF-men	no	believe.PRS.MSG

I know that men do not believe (this),

'aval	*kanir'e*	*pašut*	*medubar*	*ba-gvarim*
but	apparently	just	spoken	in.DEF-men

but apparently (we are) just talking about men,

še-'od	*lo*	*pagšu*	**našim**	**'ele**
that-yet	no	meet.PST.3MPL	women	these

who (have) not yet met **these women**.'

In (115) and (116), which are quite characteristic for the Hebrew language, the primary mention of the referent, coded by the referential expressions *sratim betašlum* 'films for a fee' (115) and *našim* 'women' (116), is so far away from the referential expressions *sratim 'ele* 'these films' (115) and *našim 'ele* 'these women' (116), that the latter cannot be considered to be still «in focus» for interlocators, or even «activated». It is likely that the discourse status of the expressions *sratim 'ele* 'these films' (115) and *našim 'ele* 'these women' (116) will rather be interpreted as «uniquely identifiable».

Example (116) correlates with the opposition of existential and generic NPs in Russian language described by A.D. Shmelev, as in the following example: «*Some logicians* understand linguistics. *They* (or *these logicians*) have a good sense of language»[493]. As in (116) in Hebrew, the first mention of the open set «*some logicians*» is an existential NP, and the subsequent NP (which, as in Hebrew, can be encoded using NP with a demonstrative pronoun) is generic.

It is significant that A.D. Shmelev directly compares the opposition of existential and generic NPs, encoding open sets, with the opposition «definite /

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[493] Shmelev A.D. Russkiy yazyk i vneyazykovaya deystvitel'nost' [Russian language and extralinguistic reality]. P. 79.

indefinite» in individual NPs[494]. Generic NP (*našim 'ele* 'these women' (116)) in this case can be compared to an indefinite NP, which can also contribute to our understanding of the fact that object marking of referential expressions of NP + DemPro(art.-) type is as a rule prohibited.

However, despite the general observation of prohibited object marking for DemPro(art.-) type constructions, the HOT corpus recorded 5 contexts where object marking was indeed realized (5/222, 2%). Let us consider the possible causes of this phenomenon in more detail.

All 5 contexts use the form of the pronoun *zo* (FSG)[495], which is one of the two feminine forms of the demonstrative pronoun in Modern Hebrew along with *zot* (FSG). Four of the five referential expressions are anaphora to propositional antecedents. The noun in this construction is in most cases an abstract name, such as *pe'ilut* 'activity', *'emda* 'position', *ta'ana* 'statement', *giša* 'approach', etc. Therefore, NPs such as *pe'ilut zo, 'emda zo, ta'ana zo, giša zo* (see, example 117) can be easily replaced by the pronoun *zot*, which also typically refers to a propositional antecedent and is not marked as a direct object (see, 3.1.4.) .

(117) *ha-moxer*   *yoce*   *me-ha-kita*   *ve-ha-lako'ax*

DEF- salesperson   exist.PRS.MSG from-DEF-class   and-DEF- customer

[during a training exercise in the classroom]

'The salesperson leaves the class, and the customer

yaxad   *'im*   *še'ar*   *ha-kita*   *boxrim*

together   with   rest   DEF-class   choose.PRS.MPL

together with the rest of the class chooses

'et   *ha-prit*   *li-kniya*   *nitan*   *levace'a*

ACC   DEF-item   for-purchase   possible   conduct.INF

the item for purchase. (It is) possible to conduct

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pe'ilut   zo   ke-taxarut.
activity   this   as- competition
this activity as a competition.'

As an additional argument for the interchangeability of this type of construction and the pronoun *zot*, provided that the referent is a propositional antecedent, the corpus offers just such a replacement in the next sentence of discourse (118).

(118)   *'efšar   la'asot   **zot**   'al   zman*
possible   do.INF   this   at   time
'(It is) possivle to do this against the clock.'

However, despite this fact, NPs with the demonstrative pronoun *zo* (FSG), not coded with the definite article, in contrast to the pronoun *zot (*FSG), coding the propositional antecedent, for which object marking is prohibited, show optional object marking — 6% (5/89) of such constructions are marked with an accusative indicator in the HOT corpus. In section 3.4. we will consider the last potential factor motivating asymmetric DOM in Modern Hebrew, namely the «topicality of the referent», which can influence the variability of the object marking of NPs with the demonstrative pronoun *zo.*

3.4. Accessibility and topicality of the referent

In J. Gundel, N. Hedberg, and R. Zakarski (1993) focused on the activity of the referent in discourse, the correlation between the degree of the referent's givenness and «topicality» is considered: «in focus» referents, according to the authors, will be more likely to be topics in subsequent discourse[496].

The concept of topicality was described in 1.4.3., where, among other things, it was noted that within the framework of functional-typological studies, topicality is considered one of the factors motivating DOM. Therefore, in order to determine the topicality of the referents, acting as O-participants of the situation in transitive

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[496] Gundel J.K., Hedberg N., Zacharski R. Cognitive Status and the Form of Referring Expressions in Discourse. Pp. 279.

clauses, the HOG and HOT corpora were annotated for the parameters «accessibility (activity) of the referent», and proximity of the referential expression encoding the direct object to either topic or focus of the sentence.

As already discussed in paragraph 1.4.2, T. Givón proposed three parameters to analyze how predictable is the appearance of a particular referent in discourse, i.e. to measure the continuity, or accessibility, of a topic[497]:

1. Reference distance (RD),

2. Potential interference (PI),

3. Cataphoric Persistence (CP).

T. Givón suggested that the high activity of the referent, acting as a topic, makes its appearance more predictable and, therefore, less language material will be required for its encoding[498]. And the opposite, if the referential distance between the core-referents of the NP is large, or there is interference in the discourse, then it is more difficult for the listeners to recall the referent of the topic, and more «coding» material will be required[499].

In accordance with this approach, as well as following the methodology for the Hebrew language data proposed by P. Beckins[500], for the referents mentioned in the previous discourse («discourse-old»), which can be considered as topics, three categories differing in the degree of accessibility of the referent were formed: 1) high degree of accessibility (CP > 0 and RD = 1-3), 2) medium degree of accessibility (CP > 0 or RD = 1-3), 3) low degree of accessibility (CP = 0 and RD > 1-3).

Table 25 below presents a summary analysis of the referential distance and cataphoric persistence for the «discourse-old» referents, showing that high degree of accessibility correlates with a higher probability of object marking, than

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[497] Givón T. Topic continuity in discourse. Pp. 1-41.

[498] Compare, for example, the coding of the «in focus» referent, *'oto* – 'him', requiring minimal coding material.

[499] Givón T. Topic continuity in discourse. P. 18.

[500] Bekins P. Information Structure and Object Marking: A Study of the Object Preposition 'et in Biblical Hebrew. 287 p.

medium and low degrees. However, the high probability of object marking (90%) among referents of a low level of accessibility suggests that this correlation is not a factor directly motivating asymmetric DOM in Modern Hebrew. The low level of significance for these results (p = .44) confirms this.

Table 25. Correlation of object marking and the degree of accessibility for referents mentioned in the previous discourse (HOG corpus) (p = .44)

Accessibility of the referent	Marked	%
High degree	186/187	99%
Medium degree	76/93	82%
Low degree	9/10	90%
Total	335/356	94%

Next, we will consider what factors, in addition to the accessibility of the referent, can influence the object marking of the «discourse-old» referents.

The medium degree of accessibility corresponds to 80% probability of object marking (76/93). Further analysis shows that these 17 unmarked objects are encoded with the demonstrative pronoun *zot* (FSG), which is co-referential to the propositional argument. Therefore, object marking is prohibited in this case due to the type of referent it's encoding, and the structural feature of the pronoun *zot*, which does not accept the accusative marker, provided that it does encode a propositional argument (see, 3.1.4.).

The low degree of accessibility of the referent corresponds to 90% probability of object marking (9/10). The 9 marked referents are represented by various types of referential expressions, in particular, genetive constructions (5/9) with an article or possessive suffix, NP with a quantifier (2/9) and NP with a demonstrative pronoun NP + DemPro(art.+) type (2/9). But all of them have the same referential status, namely, specific referential, which, as shown in 3.1. is one of the most important factors licensing asymmetric object marking in Modern Hebrew. The only unmarked referent with a low level of accessibility, according to the HOG corpus, is encoded by a non-specific referential NP, which is significant

in itself (in section 3.3. it was shown that non-specific referential NPs usually avoid being marked by an accusative due to a low level of givennes and identifiability in discourse).

While analyzing the referents' accessibility based on the HOT corpus data, which include several types of referential expressions that demonstrated optional object marking in the HOG corpus, we got similar results to those presented in Table 25. However, apparently, the degree of accessibility is even less important here. The lowest probability of object marking correlates with the medium accessibility (30%, 124/292), with the vast majority of unmarked referents encoded either by the demonstrative pronoun *zot* (FSG) (130/292), referring to the propositional argument and typically not marked in this case, or by an NP of the NP + DemPro(art.-) type (159/292), the object marking of which is also typically prohibited due to, apparently, low degree of givenness of the referent in the discourse.

Thus, for 99% (289/292) of unmarked referents with a medium degree of accessibility, the factors motivating object marking are the type of referent and degree of givenness of the referent in the discourse. The remaining 1% (3/292) is expressed by the relative pronoun *ma*, and the motivating factors for this type of referential expression, as discussed in 3.1-3.2., are its referential status and the referent's animacy status.

Referents of high and low accessibility, encoded by referential expressions demonstrating optional object marking (according to the HOT corpus), are more likely to be marked (47% and 89%, respectively), but the DOM factors also seem to lie not at the level of topicality, but the type and activity of the referent in the discourse, as well as the referential status of the expression encoding the referent.

Thus, the topicality of the referent, apparently, is not an essential factor in determining the strategy of asymmetric object marking in Modern Hebrew. However, the accessibility of the referent can help explain the dichotomy of the demonstrative pronouns *ze* (MSG) and *zot* (FSG), which demonstrate a

differentiation of object marking that is can hardly be explained by other factors (except for the type of referent, as proposed in 3.1).

As a rule, in case these pronouns are coreferential to propositional arguments, they have a medium or high degree of accessibility. In contexts for *zot*, the mention of the pronoun-encoded referent occurs at the minimum referential distance from the primary mention of the referent, i.e. follows directly in the next clause (152/152 in the HOT corpus), and, as a rule, does not have cataphoric persistence (132/152). Whereas the referent encoded with *ze* has a tendency to be used at a referential distance of at least 1 clause (more rarely up to 5-6 clauses (6/134), i.e. perception may be influenced by potential interference), although it often does have cataphoric persistence (40/134, of which 13 have 2 or more referent's mentions). Thus, according to the parameters «referential distance» and «potential interference», referents encoded by the pronoun *zot* have *a higher degree of topicality*.

Accordance to A.A. Kibrik, who is well-known for his cognitive approach to discourse studies, the activation of the referent requires considerable mental effort and, therefore, large coding means[501]. Therefore, if, from the speaker's point of view, the referent pointed to by the pronoun *zot* has a high degree of topicality and was mentioned in the preceding clause, it is already in the focus of attention of interlacutors, and there is no need to indicate it further using the *'et* marker. While the referent encoded by the pronoun *ze* that has a lower degree of topicality, and is further removed from its original mention in the discourse, requires a lot of mental effort to activate and to encode accordingly.

It is possible, however, that in the spoken Hebrew *ze* is currently actively displacing *zot*, in particular from idioms typical for this pronoun[502], and the principles of distribution and object marking for these two pronouns will continue to mix in the minds of the native speakers.

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[501] Kibrik A.A. Kognitivnyye issledovaniya po diskursu [Cognitive studies in discourse] // Voprosy yazykoznaniya [Questions of Linguistics]. 1994. No. 5. P. 137.
[502] HOT corpus recorded an expression *ma ze 'omer* in the meaning of «what does it mean», which in the generally accepted version has the form *zot*: *ma **zot** 'omeret*.

An additional factor, which, as mentioned in 2.3.1, seems to still be a strict restriction on the object marking of an inanimate referent expressed by the interrogative pronoun *ma,* is manifested in (119) (the example shows the interrogation of the attending physician of a patient who has experienced domestic violence, and his answer to the question of what, according to her description, happened):

(119) *'et   ze   hi   ken   ta'ana   'ax   lo   'ones*

ACC   this   she   yes   state.PST.3FSG   but   no   rape

'[answer] "Yes, she did state that, but not (about) rape."

'et   ma   ta'ana?

ACC   what   state.PST.3FSG

[question] "What did she state?"'

L. Glinert calls such questions «echo-questions»[503] (questions that repeat part of the previous statement of the other interlocutor), and in them, indeed, even the interrogative pronoun *ma*, encoding an inanimate referent, typically not marked in this position, must be marked with an accusative *'et*, if it encodes a direct object. Within the framework of the modern functional-typological approach, this phenomenon can be explained by the «topicality of the referent», since a prerequisite for such use of the interrogative pronoun is that the inanimate referent encoded by it must meet the following conditions: 1) it must be mentioned in the previous discourse, i.e. known to both the speaker and the addressee, 2) the interocutor asking the question must ask for additional, clarifying or more detailed information about it, 3) it is assumed that, most likely, the information will be provided, and the referent will remain active also in the right context (within the next following sentence, at least).

The same conditions apply to other referential expressions (in addition to the interrogative pronoun *ma*). If, due to various factors, their object marking under normal conditions is prohibited, they will be marked in conditions of high

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[503] Glinert L. The Grammar of Modern Hebrew. P. 272.

topicality of the referent. For example, the only context where a non-referential NP was preceded by the accusative indicator, recorded in both HOG and HOT corpora (120), is explained precisely by the influence of the «topicality» factor. In example (120), the addressee asks the audience a rhetorical question, which of the Internet sites discussed in the pretext should be you trust and which of the potential experts to ask questions, and he answers: «none of them».

(120) *’az   matay   carix   likro   ve-’et   mi   šo’alim?*
       so   when   should   read.INF   and-ACC   who   ask.PRS.PL
       ‘So when should you read [these sites] and who [should you] ask?”
       ha-tšuva   pšuta   ’et   ’af   ’exad   me-hem.
       DEF-answer   simple   ACC   no   one   of-them
       The answer is simple: **none of them**.’

As in (119), the rhetorical question in (120) can be seen as an attempt to obtain clarifying information about the referents known from the previous discourse. Moreover, the appearance of one of them in this context seems quite predictable, both in the direct answer to the question and in the statement following the answer: the audience expects that the answer to the question will name a specific website or expert from the previously discussed, and then there will be an explanation of why it is necessary to trust by his opinion. Thus, the potential referent (there is no referent in the real answer) is set with a high degree of topicality, and this feature, apparently, is what motivates the object marking of the non-referential expression *’af ’exad me-hem* ‘none of them’, that is never marked in ordinary contexts. Uncharacteristic marking choice also seems to be used by the addressee as a kind of rhetorical *device*, drawing the audience's attention to his answer to the question posed.

Summing up, we will note that, in general, for most referential expressions encoding direct objects in Modern Hebrew, the factor of topicality is not significant. However, topicality can be a factor motivating asymmetric DOM in relatively rare cases of dialogical (or in pseudo-dialogue as in (120)) speech, when

the direct object is a referent with a high level of topicality, or if the appearance of a referent with a high level of topicality is predictable.

Conclusions to Chapter 3

In this chapter, with the help of statistical data from two research corpora of Modern Hebrew (Hebrew Object General corpus and Hebrew Object Targeted corpus), we considered various discourse and pragmatic factors licensing object marking of an asymmetric type in Modern Hebrew. The influence of these factors was analyzed using corpus data obtained for all types of reference expressions, that, according to the anlysis in Chapter 2, show optional object marking: NPs with the *kol* quantifier, partitive constructions, NPs with a demonstrative pronoun not preceded by a definite article, demonstrative pronouns that independently encode the O-participant of the situation in the transitive clause, relative and interrogative pronouns. We also studied the DOM motivations for genetive constructionions with the construct state forms, since their object marking was the subject of conflicting opinions in the literature.

The following factors were considered as DOM motivations: the referential status of the NP, the animacy of the referent, the degree of identifiability and givenness of the referent, as well as the accessibility and topicality of the referent.

With the help of tools and techniques of the corpus-statistical method, including the use of the statistical parameter p-value, «significance level», which allows to objectively assess the significance of the correlation between the parameters under consideration, it was proved that the referential status of the expression encoding a direct object and several discourse-pragmatic characteristics, united by the concept of «information status of the referent», undoubtedly influence the way an O-participant of the situation in the transitive clause is coded. The concept of «information status of the referent» includes such factors of DOM as animacy, identifiability and accessibility, which, with the help of additional parameters «givenness» and «topicality» of the referent were studied in detail in sections 3.2.-3.4.

Regarding the «referential status» factor, it was shown that the referential status of the NP (especially, the specific referential status) is closely related to a definite status of the NP, which, as was discussed in Chapter 2, is expressed by various definiteness indicators, while the non-referential status (including the negative contexts or contexts with removed affirmation) is closely related to the indefinite status of an NP. Therefore, despite the statistically proven significance of the referential status parameter (see, Table 11) for most of the referential expressions that can accept definiteness indicators (article, possessive suffixes, etc.), it is difficult to determine with certainty the exact mechanism of asymmetric DOM, and the exact role of the referential status in it.

However, for all types of referential expressions that have demonstrated optional object marking in the HOG corpus, the factor of referential status has clearly shown its significance, to one degree or another. In particular, for construct states in which the head noun receives a definite status due to a definite status of its dependent name, but is not «semantically definite», as some researchers have noted, this factor allows us to explain the reason for marking with the accusative indicator: such NPs are marked because they have a referential (often a specific referential) status within the relevant denotative space formed in the minds of interlocators, wich is built on an associative connection with the referents mentioned earlier in the discourse.

Using the example of an NP with the quantifier *kol* 'all/every/each', as well as the pronouns of universality *kol/ha-kol* 'all', it was clearly demonstrated that the specific referential status is a condition for obligatory object marking, while expressions that have a universal status tend to be optionaly marked.

The analysis of the partitive constructions' object marking made it possible to draw a conclusion about the special significance of the « singularity» feature, which is typically included in the concept of referential status. We concluded that the probability of marking with an accusative is significantly increased for NPs that have *the* numeral *'exad* 'one in their structure. This results in a very high frequency of object marking for partitives including the prepositional group and

the numeral «one», for example, *'exad me-hem* 'one of them' — 78% in the HOT corpus.

Also, based on corpus data, it was concluded that the case marking of a direct object encoded by demonstrative pronouns, is motivated by the factors «type of referent» and «level of topicality of the referent». While pronouns encoding referents known from a verbal or situational context require obligatory object marking regardless of the form of the pronoun used, the marking of pronouns encoding propositional referents varies. High topicality of the referent encoded by the pronoun *zot* (FSG) requires less mental effort of the addressee to identify the referent in discourse compared to the less topical referent of the pronoun *ze* (MSG). This fact makes it possible to explain the absence of an accusative marker before the pronoun *zot* and its obligatory presence before the pronoun *ze*.

Using the corpus-statistical method, we were able to confirm the influence of the «animacy» factor on the asymmetric DOM in Modern Hebrew (see, Table 18). The influence of this factor on interrogative and relative pronouns is particularly clear. We concluded that the referent's animacy is the main factor licensing an asymmetric type DOM for direct objects encoded with interrogative pronouns, and one of two factors licensing object marking for relative pronouns. Relative pronouns, therefore, demonstrate the variability of object marking based on a combination of the factors «referential status» and «animacy».

In this chapter, corpus based study also helped to identify a correlation between the method of encoding a referential expression, coding an O-parrticipant of the situation in the transitive clause, and the degree of this referent's activity in the discourse, measured according to the Givennes scale. In particular, three categories of referents with different probabilities of object marking were identified: 1) obligatory object marking is characteristic for the most easily available referents in the memory of interlocutors, which correspond to the status «in focus» (100% marked) and «activated» (99% marked), 2) a high level of probability of object marking — for referents that have left the zone of focus, but are still preserved in the memory — «familiar» status (94% marked), and for those

not mentioned in the previous discourse, but uniquely identifiable referents (92% marked), and, finally, 3) a low level of probability of object marking — for referential (34% marked) and non-referential NPs (4%).

The parameter of referent's topicality does not seem to have a significant effect on asymmetric DOM in Modern Hebrew, but it may be relevant for some categories of referential expressions in some circumstances. In particular, topicality can be a factor which motivates object marking for typically unmarked interrogative pronoun (*ma* 'what') and referential expressions of other types, that, if associated with a high degree of topicality of the referent encoded by them, in a ceratin type of discourse (dialogue and pseudo-dialogue), can be marked.

CONCLUSION

Asymmetric object marking describes a phenomenon in which the second argument of a bivalent verb is realized in the grammatical role of a direct object, but the morphosyntactic coding of this argument varies between zero and accusative marker. The phenomenon of asymmetric object marking in current typological-functional research is usually considered in terms of «differential object marking» (DOM), which, in turn, is a special case of wider phenomenon of differential marking of arguments.

An important role in functional and typological studies on differential arguments marking is given to the distinction between the concepts of «subject» and «object», reflecting grammatical relations, or grammatical roles associated with certain morphosyntactic, semantic and pragmatic characteristics, and the concepts of «agent» and «patient», naming semantic roles that describe the relationship between the predicate and its arguments. It is also noted that the categories of subject and object also have discourse-pragmatic associations, which manifest, in particular, in the level of topicality typical for each grammatical role (a stable connection between the syntactic position and the communicative status of the topic): high topicality is characteristic of subjects, medium — for objects.

The approaches to DOM existing today in scientific literature explain the variability of object marking in different ways (by the principles of economy, disambiguation, iconicity) and offer various factors that can regulate (license) DOM. Mainly, attention is paid to the asymmetric type of DOM. Among the factors named by researchers, there are both the characteristics of the object, for example, definiteness (sometimes combined with the parameter «referential status»), animacy, topicality, and the characteristics of the predicate or clause: the values of the temporal and actional categories, polarity, mood. Among the most influential today are the optimality theory, presented by J. Aissen, and the transitivity theory put forward by P. Hopper and S. Thompson. J. Aissen suggests the fundamental role to be played by definiteness and animacy, while P. Hopper

and S. Thompson propose to exmine a correlation between the presence object markers and various parameters of transitivity, in particular, the individuation of the object, aspect, tense and actional characteristics of the verb, and the degree of object affectedness. Other researchers differ in motivations they pay special attention to (for example, M. Haspelmath — referentiality and pragmatic characteristics of arguments), but there is a general tendency to identify several levels required for the study of DOM: most often, semantic, pragmatic and deictic. Therefore, in most modern studies on DOM, the authors consider not one, but several parameters, with some measure of co-variation between them.

While symmetric object marking is motivated by a wide range of semantic factors that license the variability of marking, for the asymmetric type, the main motivating factor is considered to be the «individuation of the object», which typically is interpreted as two aspects, «definiteness» and «animacy», measured using the scales of definiteness and animacy, respectively.

Definiteness is a complex and multifaceted concept in modern linguistic literature. On the one hand, studies focus on formal indicators of grammatical definiteness, including the concept of «determiner», which is an important element of the noun phrase structure, according to some researchers, or the process of actualization of the concept, according to the others. On the other hand, various aspects of referentiality are studied, and definiteness is measured based on the type of information by which the addressee identifies the referent. Thus, situational (or deictic), anaphoric and associative types of definiteness are distinguished.

The influence of pragmatic factors of DOM is based on the fact that the speaker's referential choice depends on the cognitive system of a person and, above all, on such a mechanism as working, or short-term memory. The basic principle is formulated as follows: if the referent in the speaker's working memory (and, according to the speaker's assumption, also in the working memory of the listener) is «highly activated», then the choice is made in favor of a reduced referential means, but if the level of referent activation is low, then the speaker is more likely to use the full noun phrase. Based on this principle, linguists develop several

hierarchies that offer an algorithm for analyzing the cognitive status of referents in discourse (E. Prince's Identifiability Scale and J. Gundel's, N. Hedberg's and R. Zacharski's Givenness Scale). Together with the parameter «topic continuity», reflecting the degree of topicality of the referent, calculated according to the method proposed by T. Givón (referential distance, potential interference and cataphoric persistance), the parameters of identifiability and the degree of givenness make it possible to assess the discourse status of the referent. Discourse status is another factor potentially regulating the variability of asymmetric DOM.

Based on the Semitic languages data, in particular, Aramaic, Biblical Hebrew and Amharic, the phenomenon of DOM was studied, first of all, from the point of view of the influence of transitivity parameters, including individuation of the object (G. Khan, P. Bekins). For Modern Hebrew, as one of the nominative-accusative languages, there are two main models of variation in the ways of encoding the O-participant of the situation in the transitive clause: the asymmetric model of DOM, which is characterized by variability of the type ACC *vs* Ø (accusative marker or zero index) and the symmetric model of DOM, which is characterized by the variability of two different non-null markers. The symmetric model at the moment has very limited research done, but, apparently, variability in it is regulated by the semantic parameters of transitivity. According to the generally accepted point of view, the only factor regulating the asymmetric type of DOM in Modern Hebrew is the «definiteness of the NP».

Accordingly, focusing on the definiteness scale of J. Aissen, all referential expressions that can encode the O-participant of the situation in the transitive clause can be divided into four categories: indefinite NPs, definite NPs, proper nouns and pronouns.

A definite status of the NP may be expressed, first, by the definite article; moreover, NPs with a definite status are often called «polydefinits», i.e. constructions in which the indicators of definiteness are obligatory repeated for each element of the NP. Secondly, a definite status is assigned to genetive constructions, the dependent element of which is coded with any definiteness

indicator (including a proper name). NPs, consisting of a proper noun or a common noun with a possessive pronominal suffix, are also considered definite. Although the category of definite NPs also includes NPs with some determiners that indicate the semantics of definiteness, such NPs tend to have other indicators (e.g., the definite article) besides the determiner. Exceptions are the determiner *'oto* 'the same', which does not require the obligatory use of a definite article with the noun, as well as demonstrative pronouns paired with a noun, not coded with a definite article, provided that the noun is not preceded by an article either (*sefer ze* 'this book'). Indefinite NPs, respectively, do not accept any definiteness indicators and cannot be proper names; there is no indefinite article in Hebrew.

If the generally accepted point of view on DOM in Hebrew is correct, and it is , indeed, motivated by the formal definiteness of the referential expression, then we can assume the obligatory object marking of pronouns, proper names and definite NPs, while the object marking of formally indefinite NPs will be prohibited. However, according to corpus data, observed in this study, only one category, «proper nouns», demonstrates complete consistency of statistical data with this principle — 100% object marking as direct object. The rest demonstrate optional object marking within one or more types of referential expressions within each category. Accordingly, to explain variability of asymmetric object marking, it is necessary to take into account other factors, which are considered in the scientific literature.

The statistical data of two research corpora of Modern Hebrew (Hebrew Object General corpus and Hebrew Object Targeted corpus) made it possible to identify additional discourse and pragmatic factors regulating asymmetric DOM in Modern Hebrew. The influence of these factors was analyzed using corpus data obtained for all types of referential expressions that demonstrate optional object marking: NPs with the *kol* quantifier, partitive constructions, NPs with a demonstrative pronoun not preceded by a definite article, demonstrative pronouns that independently encode the O-participant of the situation in the transitive clause, relative and interrogative pronouns. DOM motivations for construct state were also

studied, since their object marking was the subject of conflicting opinions in the literature.

The following factors were considered: the referential status of the NP, the animacy of the referent, the degree of identifiability and givenness of the referent, as well as the accessibility and topicality of the referent.

Regarding the «referential status» factor, it was shown that the referential status of the NP (especially, the specific referential status) is closely related to a definite status of the NP, while the non-referential status (including the negative contexts or contexts with removed affirmation) is closely related to the indefinite status of an NP. Corpus data proved the statistical significance of the referential status for referential expressions that can accept definiteness indicators. But for most of such referential expressions it is difficult to prove the main motivating factor is not related to formal definiteness.

However for some types of expressios distinguishing between state of definiteness and referential status has proved to be critically important to explain object marking variation that had previously been seen as «inconsistent». It was concluded, that construct states expressions that have a formal definite status but in context may be interpreted «semantically indefinite» due to low level of textual significance may be marked because they have a referential (often a specific referential) status within the relevant denotative space formed in the minds of interlocators, wich is built on an associative connection with the referents mentioned earlier in the discourse. Further distinction was made for NPs with the quantifier *kol* 'all/every/each', as well as the pronouns of universality *kol/ha-kol* 'all': specific referential status of the NP in such cases require obligatory object marking, while expressions that have a universal status tend to be optionaly marked.

An important component of the referential status, which influences the morphosyntactic coding of a direct object, is the parameter «singularity of the referent». This parameter is especially indicative based on the partitive

constructions's analysis — the probability of their object marking increases dramatically for NPs that have the numeral *'exad* 'one' in theirstructure.

Also, based on the corpus data, it was concluded that the case marking of a direct object encoded by demonstrative pronouns, is motivated by the factors «type of referent» and «topicality of the referent». While pronouns encoding referents known from a verbal or situational context require obligatory object marking regardless of the form of the pronoun used, the marking of pronouns encoding propositional referents varies. High topicality of the referent encoded by the pronoun *zot* (FSG) requires less mental effort of the addressee to identify the referent in discourse compared to the less topical referent of the pronoun *ze* (MSG). This fact makes it possible to explain the absence of an accusative marker before the pronoun *zot* and its obligatory presence before the pronoun *ze*.

An additional factor that regulates the variability of asymmetric object marking is the «the referent's animacy». The level of influence of this factor is not identical for different types of referential expressions. The influence of this factor on interrogative and relative pronouns is particularly clear. We concluded that the referent's animacy is the main factor licensing asymmetric DOM for direct objects encoded with interrogative pronouns, and one of two factors licensing object marking for relative pronouns. Relative pronouns, therefore, demonstrate the variability of object marking based on a combination of the factors «referential status» and «animacy».

Modern Hebrew is also characterized by a correlation between the way in which the referential expression, acting as a direct object, is encoded, and the degree of activity of the referent in the discourse, measured according to the Givenness scale. In particular, three categories of 'discourse-old' referents with different probabilities of object marking were identified: 1) obligatory object marking is characteristic for the most easily available referents in the memory of interlocutors, which correspond to the status «in focus» and «activated», 2) a high level of probability of object marking — for referents that have left the zone of focus, but are still preserved in the memory — «familiar» status, and for those not

mentioned in the previous discourse, but uniquely identifiable referents, and, finally, 3) a low level of probability of object marking — for weakly definite referential, non-specific referential and non-referential NPs.

The parameter of referent's topicality does not seem to have a significant effect on asymmetric DOM in Modern Hebrew, but it may be relevant for some categories of referential expressions in some circumstances. In particular, topicality can be a factor which motivates object marking for typically unmarked interrogative pronoun (ma 'what') and referential expressions of other types, that, if associated with a high degree of topicality of the referent encoded by them, in a ceratin type of discourse, can be marked.

Thus, relying on the achievements of modern functional-typological linguistics and using the methods of comparative and explanatory description, contextual analysis and statistical analysis of corpus data, we concluded that asymmetric object marking in Modern Hebrew is a multifaceted phenomenon, the explanation of which requires taking into account not only formal characteristics of the marked noun phrase, but also the influence of a wide range of discourse-pragmatic factors, including those associated with the cognitive processes of generating and perceiving speech.

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APPENDIX 1. List of tables

APPENDIX 2. List of abbreviations

1, 2, 3 — 1st, 2nd, 3rd person

A — agent

ACC — accusative

COP — copula

CP — plural of the common gender

DAT — dative

DEF — definiteness (definite article)

F — feminine

FUT — future tense

GEN — genitive

IMP — imperfect

INF — infinitive

M — masculine

O/P — patient

OBJ — object

PART — partitive

PERF — perfect

PL — plural

POSS — possessive element

PRS — present tense

PST — past tense

S — subject

SG — singular

art.- — no definite article

art.+ — definite article

NP — noun phrase

indef.+ — indefinite status

def.+ — definite status

PP   — prepositional phrase

DemPro   — demonstrative pronoun