

Existential Wh-Constructions

Radek Šimík

Humboldt-Universität zu Berlin

Postprint from 2017-05-31 (post-review, pre-final proof)

Appeared in *Oxford bibliographies in linguistics* (ed. Mark Aronoff)

<https://doi.org/10.1093/OBO/9780199772810-0162>

TABLE OF CONTENTS

Introduction

Modal Existential Wh-Constructions

 Basic References on Modal Existential Wh-Constructions

 Syntax of Modal Existential Wh-Constructions

 Nominal Analyses of Modal Existential Wh-Constructions

 Clausal Analyses of Modal Existential Wh-Constructions

 Sub-Clausal Analyses of Modal Existential Wh-Constructions

 Semantics of Modal Existential Wh-Constructions

 Modal Existential Wh-Constructions in Particular Languages

 Baltic

 Finno-Ugric

 Germanic

 Romance

 Semitic

 Slavic

 Other Languages

Existential Free Relatives

Existential Interpretation of Other Wh-Constructions

 Modal Possessive Constructions

 Future Wh-Clauses

 Transparent Free Relatives

 Existential Properties/Analyses of Standard Free Relatives

INTRODUCTION

Existential wh-constructions are wh-constructions that have a nominal distribution, an existential (indefinite) meaning, and the superficial appearance of a “bare” wh-clause. They come in two main subtypes—existential free relatives and modal existential wh-constructions—with opinions divided as to how these types are related to each other and whether the latter should be subsumed under the former. An example of an existential free relative is the bracketed part of the Chuj (Mayan) sentence *Ay [mach lanin yilani]* (literally, Exists [who is.me watching], “There is somebody who is watching me,” from Kotek and Erlewine, 2016, cited under **Existential Free Relatives**); an example of a modal existential wh-construction is the bracketed part of the Spanish sentence *Tengo [con quien hablar]* (literally, I.have [with whom to.speak], “There is somebody I can speak with”). Besides these main types, a number of other wh-constructions have been argued to have an existential interpretation, including transparent free relatives and standard free relatives. Existential wh-constructions have been studied for their intriguing morphological, syntactic, and semantic properties, which include, at least in some cases, a limited syntactic distribution, their unclear categorial status and syntactic size, the mood of their main predicate, and the modality they express. Existential wh-constructions have sparked a controversy concerning their relation to similar constructions, especially embedded wh-questions, headed relatives, and standard free

relatives. Existential wh-constructions are generally found in languages that also have standard free relatives, although there are some notable gaps. Most Germanic languages, for instance, have standard free relatives, but lack existential wh-constructions altogether; many languages of the broader European region (Slavic, Finno-Ugric, Semitic) have standard free relatives and modal existential wh-constructions, but no existential free relatives; finally, some of the Mesoamerican languages that have been investigated (especially Mayan) have standard and existential free relatives but no modal existential wh-constructions.

MODAL EXISTENTIAL WH-CONSTRUCTIONS

The modal existential wh-construction is by far the most studied and arguably also the cross-linguistically most common type of existential wh-construction. While standard reference or overview works are still missing, there are a number of studies that have had the biggest impact since the late 1990s and that provide a good introduction to the topic; see *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*. The rest of the section includes references on the *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions* and *Modal Existential Wh-Constructions: Semantics of Modal Existential Wh-Constructions*, and closes by zooming in on *Modal Existential Wh-Constructions: Modal Existential Wh-Constructions in Particular Languages*—a subsection that is further divided according to language families.

Basic References on Modal Existential Wh-Constructions

The term modal existential wh-constructions (often abbreviated as MECs) originates with Grosu 2004, which is also one of the most influential studies on the topic. It reflects the three core properties of these constructions: the modal interpretation of the embedded predicate (which is typically nonfinite), their existential interpretation (which is intimately tied to the distribution under existential predicates), and the fact that they are wh-constructions, i.e., constructions with a fronted wh-phrase. The term remains neutral with respect to the theoretical controversy of whether the modal existential wh-construction is a subtype of the embedded wh-question—an idea defended by Pancheva Izvorski 2000, or of the free relative construction—until recently the majority view, represented, e.g., by Caponigro 2003. Modal existential wh-constructions is also the title of the only existing book-length monograph on the topic, Šimík 2011. Other terms used for modal existential wh-constructions include irrealis/infinitival/non-indicative/indefinite/existential free relatives.

Caponigro, Ivano. 2003. Free not to ask: On the semantics of free relatives and wh-words cross-linguistically. PhD diss., Univ. of California, Los Angeles.

Chapter 3 (pp. 82–103) of this dissertation provides an analysis of modal existential wh-constructions and existential free relatives (jointly referred to as the latter), arguing that they are property-denoting complementizer phrases (CPs), selected by an existential predicate. Caponigro defends the claim that the modal existential wh-construction is just a subtype of the existential free relative. He concentrates on Italian, but provides examples from a wide range of languages, including Romance, Slavic, and Semitic languages.

Grosu, Alexander. 2004. The syntax-semantics of modal existential wh constructions. In *Balkan syntax and semantics*. Edited by Olga Mišeska-Tomić, 405–438. Amsterdam: John Benjamins. [ISBN: 9781588115027]

Grosu argues that modal existential wh-constructions are constructions *sui generis*. He also maintains that modal existential wh-constructions are syntactically CPs (differing from the standardly assumed determiner-phrase syntax of free relatives) and semantically generalized

quantifiers with existential force. The nonfinite morphology and the existential semantics are encoded in a construction-specific complementizer-head. Grosu draws his arguments from a wide variety of languages, the most prominent being Romanian, Hungarian, and Modern Hebrew.

Pancheva Izvorski, Roumyana. 2000. Free relatives and related matters. PhD diss., Univ. of Pennsylvania, Philadelphia.

Chapter 2 (pp. 23–67) of this dissertation provides an analysis of modal existential wh-constructions (referred to as irrealis free relatives). Pancheva Izvorski's main claim is that modal existential wh-constructions are akin to embedded wh-questions rather than free relatives. She argues that they are CPs, selected by a modal-existential predicate. Pancheva Izvorski concentrates on Russian and Bulgarian data.

Šimík, Radek. 2011. Modal existential wh-constructions. PhD diss., Univ. of Groningen.

The most in-depth study of modal existential wh-constructions to date. Based on a sample of sixteen languages, it offers a typological perspective and formulates a set of universals. The theoretical contribution is based on a detailed analysis of Czech, Russian, Hungarian, and Spanish. Šimík puts forth what he calls the event-extension analysis, according to which modal existential wh-constructions characterize an event that is made possible by the existence/availability of an entity.

Syntax of Modal Existential Wh-Constructions

Modal existential wh-constructions have been known for their ambivalent syntactic behavior. On the one hand, they appear to have a nominal distribution (being complements to verbs like *have*), on the other, they exhibit clausal internal syntax (being, e.g., transparent for syntactic extraction). This ambivalent behavior gave rise to two types of theoretical controversies. A relatively recent debate is whether modal existential wh-constructions are a subtype of free relatives or embedded wh-questions—see Caponigro 2003 and Pancheva Izvorski 2000, respectively (both cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*). This controversy, however, is to a large extent terminological, as both Caponigro and Pancheva Izvorski agree on analyzing modal existential wh-constructions as syntactic clauses (CPs). A more substantial and long-standing controversy related to the ambivalent behavior of modal existential wh-constructions is whether they are to be analyzed as clauses (CPs) or nominals (NPs, or noun phrases/DPs). A third type of view is that they are neither and that their syntax is essentially sub-clausal.

Nominal Analyses of Modal Existential Wh-Constructions

According to nominal analyses, modal existential wh-constructions are categorically NPs (more recently DPs)—having a clausal core (a relative clause), either headed by a phonologically empty nominal category, such as N (Plann 1980), *pro* (Suñer 1984), or D (Agouraki 2005, cited under *Existential Interpretation of Other Wh-Constructions: Future Wh-Clauses*), or by the wh-word (Rappaport 1986). Arguments for this type of analysis come from the distribution of modal existential wh-constructions (they function as complements to verbs like *have*, *find*, or *buy*) and from their apparently nominal semantics (they can be paraphrased by indefinite NPs). Plann 1980 provides a range of additional arguments from Spanish, in which modal existential wh-constructions behave on a par with infinitival relative clauses headed by indefinite NPs. The nominal analysis is also implied in Hirschbühler 1978.

Hirschbühler, Paul. 1978. The syntax and semantics of wh-constructions. PhD diss., Univ. of Massachusetts, Amherst.

Section 7.8 (pp. 218–220) provides a brief discussion of modal existential wh-constructions (referred to as infinitival free relatives) and their comparison with standard free relatives in French and Spanish. A nominal analysis is implied.

Plann, Susan Joan. 1980. *Relative clauses in Spanish without overt antecedents and related constructions*. Los Angeles: Univ. of California Press. [ISBN: 9780520096080]

Sections III.B, IV, and V (pp. 123–162) provide a fairly detailed discussion of modal existential wh-constructions in Spanish. Plann treats them as instances of headed infinitival relatives (with a phonologically empty indefinite N-head), backing her claims with a range of empirical tests.

Rappaport, Gilbert C. 1986. On a persistent problem of Russian syntax: Sentences of the type *mne negde spat'*. *Russian Linguistics* 10.1: 1–31. <https://doi.org/10.1007/BF02551591>

Detailed discussion of Russian modal existential wh-constructions (called BKI-constructions; from the existential verb *byt'* 'be', k-word [where 'k-' is a morpheme that corresponds to the English 'wh-'] and infinitive) and also a rich source of references to relevant literature written in Russian. Rappaport argues that the embedding verb selects for the wh-word, which is in turn modified by the infinitival clause.

Suñer, Margarita. 1984. Free relatives and the matching parameter. *Linguistic Review* 3.4: 363–387. <https://doi.org/10.1515/tlir.1984.3.4.363>

Paper devoted to deriving the presence and absence of case-matching effects in free relatives and modal existential wh-constructions (referred to as infinitival free relatives), respectively. The latter are analyzed as clauses headed by a silent pronominal category (*pro*), which is licensed by the embedded inflection (INFL).

Clausal Analyses of Modal Existential Wh-Constructions

According to clausal analyses, modal existential wh-constructions are categorically CPs and are therefore syntactically more like embedded wh-questions than free relatives. Despite this categorization, they are often thought of as kinds of free relatives, particularly free relatives without a nominal head—a position implied in Pesetsky 1982, Grosu 1989, Grosu 1994, or Caponigro 2003 (which is cited under **Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions**). Pancheva Izvorski 2000 (cited under **Basic References on Modal Existential Wh-Constructions**) is the only work to argue explicitly that modal existential wh-constructions are in fact a subkind of embedded wh-questions. Yet others argue that modal existential wh-constructions cannot be reduced to any standard construction type. For instance, Babby 2000 (cited under **Modal Existential Wh-Constructions: Modal Existential Wh-Constructions in Particular Languages: Slavic**) explicitly denies any direct relation between modal existential wh-constructions on the one hand and embedded wh-questions and free relatives on the other; Grosu 2004 (cited under **Basic References on Modal Existential Wh-Constructions**) underlies the sui generis nature of modal existential wh-constructions by devising a devoted C-head. Šimik 2011 (cited under **Basic References on Modal Existential Wh-Constructions**) devotes its Chapter 3 to a

detailed comparison between modal existential wh-constructions, embedded wh-questions, and free relatives, concluding that no general reduction claim is possible. The main arguments for a clausal analysis of modal existential wh-constructions include the absence of case-matching effects on their wh-words (Pesetsky 1982), the availability of multiple wh-expressions in one clause (Rudin 1986), the availability of pied piping (Grosu 1989), or their transparency for extraction (Grosu and Landman 1998, cited under *Modal Existential Wh-Constructions: Semantics of Modal Existential Wh-Construction*).

Grosu, Alexander. 1989. Pied piping and the matching parameter. *Linguistic Review* 6.1: 41–58. <https://doi.org/10.1515/tlir.1987.6.1.41>

In section 4 (pp. 52–54), Grosu observes (for Spanish and Romanian) that modal existential wh-constructions can also make use of the subjunctive mood, not just the infinitive. For that reason he proposes to call them non-indicative (instead of infinitival) free relatives. Grosu endorses the analysis in Pesetsky 1982 of modal existential wh-constructions and considers them existential quantifiers of category S' (sentence bar, more recently, CP).

Grosu, Alexander. 1994. *Three studies in locality and case*. London: Routledge. [ISBN: 9780415108270]

In section 5 of Study I (pp. 137–143), Grosu provides further evidence (from Spanish, Romanian, and Modern Hebrew) for the clausal (“bare CP”) analysis of modal existential wh-constructions (referred to as irrealis free relatives). He also argues that they are semantically related to amount relatives in that they function as weak nominals. Like amount relatives, they cannot stack.

Pesetsky, David. 1982. *Paths and categories*. PhD diss., MIT, Cambridge, MA.

In section 4.4.1 of Part One (pp. 149–157), Pesetsky argues (on the basis of evidence from Russian) that modal existential wh-constructions (called infinitival free relatives) are of category S' (more recently, CP). Semantically, they are argued to be existential quantifiers that undergo obligatory quantifier raising, leaving behind a categorically ambivalent trace, which can function as a nominal argument.

Rudin, Catherine. 1986. *Aspects of Bulgarian syntax: Complementizers and wh-constructions*. Columbus, OH: Slavica Publishers. [ISBN: 9780893571566]

In Chapter 6 (especially pp. 155–159 and 188–195), Rudin argues (on the basis of evidence from Bulgarian) that modal existential wh-constructions (called INDEF, due to their indefinite semantics) are of category S' (more recently, CP). One of her arguments is the existence of modal existential wh-constructions with multiple wh-words.

Sub-Clausal Analyses of Modal Existential Wh-Constructions

According to sub-clausal analyses, modal existential wh-constructions are verb phrases or potentially some other kind of a sub-CP category. Sub-clausal analyses have mostly been applied to Slavic languages. The main observation supporting a sub-clausal treatment of modal existential wh-constructions is that they are highly transparent for syntactic extraction, even more than embedded wh-questions. For instance, Zubatý 1922 and the more recent Ceplová 2007 (both cited under *Modal Existential Wh-Constructions: Modal Existential Wh-Constructions in Particular Languages: Slavic*) notice that modal existential wh-constructions in Czech are transparent for clitic climbing. Šimík 2013 investigates the

properties of empty subjects in modal existential wh-constructions, arguing that they are to be analyzed as traces after subject raising into the matrix, or as obligatorily controlled PRO (a phonetically null subject of an infinitival verb phrase); in both cases, a rather truncated structure of the modal existential wh-construction is implied. Chvany 1975 (cited under *Slavic*) and Kondrashova and Šimík 2013 argue that negated modal existential wh-constructions in Russian exhibit an incorporation of the wh-word into the matrix predicate, giving rise to the so-called neg-wh item.

Kondrashova, Natalia, and Radek Šimík. 2013. Quantificational properties of neg-wh items in Russian. In *NELS 40: Proceedings of the 40th annual meeting of the North East Linguistic Society*. Vol. 2. Edited by Seda Kan, Claire Moore-Cantwell, and Robert Staubs, 15–28. Amherst, MA: GLSA Publications. [ISBN: 9781492268802]

Paper on Russian modal existential wh-constructions. Deals with a Russian-specific problem of what Kondrashova and Šimík call neg-wh items: items used specifically in modal existential wh-constructions that are morphologically composed of a negative existential verb and a wh-word. Kondrashova and Šimík argue that this item results from a process of syntactic incorporation, providing support for the absence of a clausal boundary between the modal existential wh-construction and its matrix verb.

Šimík, Radek. 2013. The PRO-wh connection in modal existential wh-constructions: An argument in favor of semantic control. *Natural Language & Linguistic Theory* 31.4: 1163–1205. <https://doi.org/10.1007/s11049-013-9205-9>

Paper on the syntax and semantics of (empty) subjects in modal existential wh-constructions (mainly in Czech, Hungarian, Spanish, and Russian). The paper offers a (cross- and intralinguistic) typology of modal existential wh-constructions according to the properties of their subjects (raising, obligatory controlled, and independent subjects). It also offers an analysis of modal existential wh-constructions with wh-subjects.

Semantics of Modal Existential Wh-Constructions

Compared to their syntax, the semantics of modal existential wh-constructions have been less explored. Some puzzles long remained unaddressed (e.g., the semantically conditioned distribution of modal existential wh-constructions, which was first seriously analyzed in Grosu 2004, cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*), others were, until relatively recently, not even recognized (e.g., the highly restricted modality of modal existential wh-constructions, whose first theoretical treatment is to be found in Šimík 2011, cited under *Basic References on Modal Existential Wh-Constructions*). There have been two main types of semantic analyses. According to one analysis, represented by Pesetsky 1982 (cited under *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions: Clausal Analyses of Modal Existential Wh-Constructions*), Rappaport 1986 (cited under *Syntax of Modal Existential Wh-Constructions: Nominal Analyses of Modal Existential Wh-Constructions*), Grosu 2004 (cited under *Basic References on Modal Existential Wh-Constructions*), and Ojeda 2016 (cited under *Modal Existential Wh-Constructions: Modal Existential Wh-Constructions in Particular Languages: Romance*), modal existential wh-constructions denote existential quantifiers. According to the other analysis, represented by Grosu 1994 (cited under *Clausal Analyses of Modal Existential Wh-Constructions*), Grosu and Landman 1998, Pancheva Izvorski 2000, and Capoingro 2003 (the latter two cited under *Basic References on Modal Existential Wh-Constructions*), they denote properties and hence are non-quantificational. Both analyses are *prima facie* plausible: they both draw on the analogy with comparable

indefinite NPs (for which both the quantificational and the non-quantificational analysis have been broadly accepted); the latter, moreover, receives support from the formal and semantic similarities with related constructions, such as questions and (free) relative clauses. Both, however, have little to say about the core semantic puzzles of modal existential wh-constructions, namely, their distribution and their modality. These shortcomings have been relatively recently addressed in Šimík 2013, which proposes that modal existential wh-constructions are affordance descriptions—special kinds of relations between individuals and events.

Grosu, Alexander, and Fred Landman. 1998. Strange relatives of the third kind. *Natural Language Semantics* 6.2: 125–170.
<https://doi.org/10.1023/A:1008268401837>

Grosu and Landman (especially pp. 155–158) discuss modal existential wh-constructions (called irrealis free relatives) in the context of degree (amount) relatives as well as other relative constructions. Modal existential wh-constructions are taken to represent one extreme on the spectrum of possible relative constructions: they are taken to be the most underspecified case, both syntactically (being “bare” CPs) and semantically (being properties, lacking a head or a [maximalizing] operator).

Šimík, Radek. 2013b. Modal existential wh-constructions as affordance descriptions. In *Proceedings of Sinn und Bedeutung 17 (Paris, September 2012)*. Edited by Emmanuel Chemla, Vincent Homer, and Grégoire Winterstein, 563–580.
<http://semanticsarchive.net/Archive/Dk3NGEwY/Simik.pdf>

Šimík proposes a novel semantic analysis of modal existential wh-constructions. It is argued that they denote affordance descriptions, where an affordance is taken to be a relation between an individual and an event that it affords (makes possible). It is claimed that the affordance character of modal existential wh-constructions explains the nature of their modality and—via the closely related notion of availability—also their distribution.

Modal Existential Wh-Constructions in Particular Languages

Modal existential wh-constructions have often been studied by researchers concentrating on particular languages or language families. This focus has led to a certain fragmentation of the discourse on this topic. Nevertheless, these language-specific studies often contain important insights or detailed descriptions that are of value to general linguistic audiences. The present section is organized into alphabetically organized subsections, which correspond to individual language families: *Baltic*, *Finno-Ugric*, *Germanic*, *Romance*, *Semitic*, *Slavic*, and *Other Languages* (including Albanian, Basque, Greek, and Mesoamerican languages).

Baltic

The study of Baltic (Lithuanian and Latvian) modal existential wh-constructions has often drawn inspiration from the study of Slavic (and specifically Russian) modal existential wh-constructions. Holvoet 1999 and Holvoet 2003 compare and contrast Baltic and Slavic modal existential wh-constructions and take a historical perspective. Kalédaitė 2000, Kalédaitė 2002, and Kalédaitė 2012 deal specifically with Lithuanian modal existential wh-constructions. Mazzitelli 2015 (cited under *Modal Existential Wh-Constructions: Modal Existential Wh-Constructions in Particular Languages: Slavic*) compares Lithuanian with Belarusian.

Holvoet, Axel. 1999. Infinitival relative clauses in Baltic and Slavonic. *Baltistica* 34.1: 37–53. <https://doi.org/10.15388/baltistica.34.1.470>

Holvoet considers modal existential wh-constructions subtypes of infinitival relative/purpose clauses. He observes, however, that of all Slavic and Baltic languages, only Latvian has a productive headed infinitival relative. He further considers the hypothesis that modal existential wh-constructions have historically developed from purpose clauses (modal existential wh-constructions and purpose clauses are analyzed on a par, although for independent reasons, in Šimík 2011, cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*).

Holvoet, Axel. 2003. Modal constructions with “be” and the infinitive in Slavonic and Baltic. *Zeitschrift für Slawistik* 48.4: 465–480.
<https://doi.org/10.1524/slav.2003.48.4.465>

Modal existential wh-constructions are discussed here in the context of other types of Baltic and Slavic infinitival constructions, such as modal constructions involving dative subjects of infinitives (and potentially a copula).

Kalėdaitė, Violeta. 2000. Savita lietuviškoji BKB konstrukcija. *Darbai ir Dienos* 24:75–81.

A discussion of modal existential wh-construction in Lithuanian (written in Lithuanian). The term BKB construction is a translation of that in Rappaport 1986 (cited under *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions: Nominal Analyses of Modal Existential Wh-Constructions*) BKI-construction.

Kalėdaitė, Violeta. 2002. *Existential sentences in English and Lithuanian: A contrastive study*. Frankfurt: Peter Lang. [ISBN: 9783631394540]

A discussion of modal existential wh-construction in the context of other existential constructions in English and Lithuanian. The modal existential wh-construction is considered a language-specific construction.

Kalėdaitė, Violeta. 2012. The specifying existential sentence type in Lithuanian: A problem statement. In *Multiple perspectives in linguistic research on Baltic languages*. Edited by Aurelija Usonienė, Nicole Nau, and Ineta Dabašinskiėnė, 193–205. Cambridge, UK: Cambridge Scholars Publishing. [ISBN: 9781443836456]

A discussion of modal existential wh-construction in the context of other Lithuanian existential constructions and of existential constructions in general.

Finno-Ugric

There is no published literature specifically dedicated to Finno-Ugric modal existential wh-constructions. The existence of modal existential wh-constructions in Finnish and Estonian is first briefly noticed in Caponigro 2003 (cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*); their existence in Hungarian is noticed in Lipták 2001. A detailed analysis of Hungarian modal existential wh-constructions can be found in a manuscript, namely, Lipták 2003, which has served as an important data source for the analyses performed in Šimík 2011 (cited under *Basic References on Modal Existential Wh-Constructions*) and Šimík 2013 (cited under *Syntax of Modal Existential Wh-Constructions: Sub-Clausal Analyses of Modal Existential Wh-Constructions*), which note that Hungarian exhibits some intriguing and cross-linguistically rare properties,

involving interactions among mood, syntactic size, subject properties, and the choice of the type of wh-word (Hungarian being the only known language that can employ morphologically relative wh-words, besides the standard interrogative wh-words).

Lipták, Anikó. 2001. On the syntax of wh-items in Hungarian. PhD diss., Univ. of Leiden.

Chapter 1 of this dissertation contains a brief discussion of Hungarian modal existential wh-constructions (called infinitive clauses with a matrix existential predicate). Lipták argues that the wh-word in these constructions (just as in all others in Hungarian) is interpreted as a variable, in this particular case bound by the matrix existential predicate.

Lipták, Anikó. 2003. Hungarian modal existential wh-constructions. Manuscript, Univ. of Leiden.

This manuscript introduces plenty of important observations about Hungarian modal existential wh-constructions, most of which are reported on in Šimík 2011 (cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*).

Germanic

Germanic languages are claimed to lack modal existential wh-constructions altogether. The only exceptions that have been noted are Yiddish (first observed in Caponigro 2001) and a variety of English spoken in New York (Caponigro 2003, cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*).

Caponigro, Ivano. 2001. On the semantics of indefinite free relatives. In *Proceedings of ConSOLE X*. Edited by Marjo van Koppen, Joanna Sio, and Mark de Vos, 49–62. Leiden, The Netherlands: SOLE. [ISBN: 9080458252]

On p. 53, Caponigro notes the absence of Germanic modal existential wh-constructions (called indefinite free relatives)—with the exception of Yiddish, from which he provides two examples.

Romance

The study of modal existential wh-constructions in Romance languages has a long tradition. In fact, modal existential wh-constructions entered the theoretical (generative) discourse via Romance languages—particularly through the work in Hirschbühler 1978, Plann 1980, and Suñer 1984 (all cited under *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions: Nominal Analyses of Modal Existential Wh-Constructions*). Hirschbühler 1978 is concerned with French, and Plann 1980 and Suñer 1984 focus on Spanish. Plann 1980 remains the most detailed study on Spanish (Plann's observations have more recently been taken up and analyzed in Šimík 2011, cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*). A relatively recent Spanish-language investigation of modal existential wh-construction in Spanish can be found in Ojea 2016. French is less explored: a detailed study is missing, the only exception being the unpublished work Thomas 2008. Italian forms the empirical core of Caponigro's work (Caponigro 2001, cited under *Modal Existential Wh-Constructions: Modal Existential Wh-Constructions in Particular Languages: Germanic*), and Caponigro 2003, cited under *Basic References on Modal Existential Wh-Constructions*), just as Romanian is the core of Grosu's studies (e.g., Grosu 1989 and Grosu

1994, both cited under *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions: Clausal Analyses of Modal Existential Wh-Constructions*). Detailed English-language work on Portuguese is missing (see Šimík 2011, cited under *Basic References on Modal Existential Wh-Constructions*, for some basic facts), but Brito 1988 and especially Mória 1992 are good Portuguese-language sources. Catalan is the object language of the early study Hirschbühler and Rivero 1981. See also Bartra i Kaufmann 1990.

Bartra i Kaufmann, Anna. 1990. Sobre unes frases relatives sense antecedent. *Caplletra: Revista Internacional de Filologia* 8:131–148. <http://www.raco.cat/index.php/Caplletra/article/view/300178>

A Catalan-language study of Catalan free relatives and modal existential wh-constructions.

Brito, Ana Maria. 1988. A sintaxe das orações relativas em Português: Estrutura, mecanismos interpretativos e condições sobre a distribuição dos morfemas relativos. PhD diss., Univ. of Lisbon.

Section 3.2.1. of Chapter 5 (pp. 371–377) of this Portuguese-language dissertation discusses Portuguese modal existential wh-constructions. Brito argues that Portuguese modal existential wh-constructions are nominal in character (being headed by a *pro*).

Hirschbühler, Paul, and María-Luisa Rivero. 1981. A unified analysis of matching and non-matching free relatives in Catalan. In *NELS 11: Proceedings of the 11th Annual Meeting of the North East Linguistic Society*. Edited by Victoria A. Burke and James Pustejovsky, 113–124. Amherst, MA: GLSA Publications.

Hirschbühler considers Catalan modal existential wh-constructions (called infinitival free relatives) in their typology of matching versus non-matching free relatives, but provide no analytical account of them.

Mória, Telmo. 1992. A sintaxe das orações relativas sem antecedente expresso do Português. MA thesis, Univ. of Lisbon.

Section 3.2 (pp. 93–119) of this Portuguese-language thesis on Portuguese free relatives contains a detailed discussion and analysis of modal existential wh-constructions (referred to as infinitival relatives selected by predicates like “have”). The author argues that Portuguese modal existential wh-constructions are nominal in character (being headed by a *pro*). The study contains a good deal of original observations that go beyond previous literature.

Ojea, Ana. 2016. Categorías mixtas truncadas: La nominalización defectiva en las cláusulas relativas existenciales modales. *Revista de Lingüística Teórica y Aplicada* 54.1: 129–147. <https://doi.org/10.4067/S0718-48832016000100007>

Ojea treats the Spanish modal existential wh-construction (called modal existential relative clause) as an instance of a “defectively nominalized” structure. She takes modal existential wh-constructions to be existential quantifiers.

Thomas, Guillaume. 2008. Consequences of modal existential constructions for the doubly filled Comp phenomenon in French. Manuscript, MIT, Cambridge, MA.

Thomas's manuscript revolves around the observation that French modal existential wh-constructions cannot make use of ordinary object wh-pronouns and require prepositional phrases instead.

Semitic

There is no study dedicated to Semitic modal existential wh-constructions. Some discussion of Modern Hebrew can be found in Grosu's work (Grosu 1994, cited under *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions: Clausal Analyses of Modal Existential Wh-Constructions*, and Grosu 2004, cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*, which also gives examples from Classical Arabic). Moroccan Arabic is exemplified in Caponigro 2003 (cited under *Basic References on Modal Existential Wh-Constructions*). Camilleri and Sadler 2016 reports on a previously unexplored construction in Maltese that—the authors claim—is related to the modal existential wh-construction.

Camilleri, Maris, and Louisa Sadler. 2016. Relativisation in Maltese. *Transactions of the Philological Society* 114.1: 117–145. <https://doi.org/10.1111/1467-968X.12070>

On pp. 21ff. of this study on Maltese relative constructions, the authors notice the existence of an overtly headed relative clause, which shares some properties with the modal existential wh-construction (distribution, mood/aspect restrictions, wh-words).

Slavic

Slavic modal existential wh-constructions have been studied rather extensively—both in traditional descriptive grammars and within generative approaches. Russian modal existential wh-constructions are probably among the best studied. They have raised interest especially because of the special morphological form used in their negated version—the “neg-wh item”—an apparently lexical combination of a negated existential verb and a wh-word. Studies dedicated to this item (possibly in the broader context of the Russian modal existential wh-construction as such) include Holthusen 1953, Mirowicz 1964, Garde 1976, and Rappaport 1986 (which is cited under *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions: Nominal Analyses of Modal Existential Wh-Constructions*), Apresjan and Iomdin 1989, Ružička 1994, and Kondrashova and Šimík 2013 (cited under *Syntax of Modal Existential Wh-Constructions: Sub-Clausal Analyses of Modal Existential Wh-Constructions*). Russian modal existential wh-constructions are further studied in Chvany 1975, Pesetsky 1982 (which is cited under *Syntax of Modal Existential Wh-Constructions: Clausal Analyses of Modal Existential Wh-Constructions*), Babby 2000, Šimík 2011 (which is cited under *Basic References on Modal Existential Wh-Constructions*), Livitz 2012 (cited under *Existential Interpretation of Other Wh-Constructions: Modal Possessive Constructions*), and Fortuin 2014. Czech modal existential wh-constructions have been known for their transparency for extraction (allowing for clitic climbing, contrary to comparable embedded wh-questions)—noted as early as in Zubatý 1922. The first detailed study of Czech modal existential wh-constructions is Ceplová 2007. See also Šimík 2011 (cited under *Basic References on Modal Existential Wh-Constructions*). Important observations about Bulgarian modal existential wh-constructions are made in Rudin 1986 (cited under *Clausal Analyses of Modal Existential Wh-Constructions*); Bulgarian also forms the empirical core of Pancheva Izvorski 2000 (cited under *Basic References on Modal Existential Wh-Constructions*). Some Slavic languages have been studied to a much lesser extent: Serbo-Croatian is discussed in Pancheva Izvorski 2000 (cited under *Basic References on Modal Existential Wh-Constructions*), Polish in Holvoet 2001, and Belarusian in Mazzitelli 2015. Yet others are represented only by

individual examples: Slovak is mentioned in Růžička 1994, Macedonian in Caponigro 2003, and Ukrainian and Slovenian in Šimik 2011 (the latter two cited under *Basic References on Modal Existential Wh-Constructions*). There is no literature on (Lower or Upper) Sorbian modal existential wh-constructions.

Apresjan, Jurij D., and Leonid L. Iomdin. 1989. Konstrukcija tipa *negde spat'*: Sintaksis, semantika, leksikografija. *Semiotika i Informatika* 29:34–92.

A Russian-language analysis of Russian modal existential wh-constructions, with special focus on the neg-wh item, which the authors call syntactic agglomerates. Contains an overview of previous analyses.

Avgustinova, Tania. 2003. Russian infinitival existential constructions from an HPSG perspective. In *Investigations into formal Slavic linguistics: Contributions of the fourth European conference on formal descriptions of Slavic languages (FDSL IV)*. Edited by Peter Kosta, Joanna Błaszczak, Jens Frasek, Ljudmila Geist, and Marzena Żygis, 461–482. Frankfurt: Peter Lang.

Head-driven phrase structure grammar (HPSG) analysis of Russian modal existential wh-constructions (called infinitival existential constructions).

Babby, Leonard H. 2000. Infinitival existential sentences in Russian: A case of syntactic suppletion. In *Formal approaches to Slavic linguistics 8: The Philadelphia Meeting 1999*. Edited by Tracy Holloway King and Irina A. Sekerina, 1–21. Ann Arbor, MI: Michigan Slavic Publications. [ISBN: 9780930042844]

Analysis of Russian modal existential wh-constructions (called infinitival existential sentences). The neg-wh item is argued to be formed post-syntactically. Babby argues for a clausal analysis. What is of interest is that in contrast to the majority view, Babby holds that the dative subject characteristic of Russian modal existential wh-constructions originates in the embedded clause and raises into the matrix.

Ceplová, Markéta. 2007. Infinitives under “have”/“be” in Czech. In *Czech in generative grammar*. Edited by Mojmir Dočekal, Petr Karlík, and Jana Zmrzliková, 31–45. Munich: LINCOM. [ISBN: 9783895860799]

The first in-depth analysis of Czech modal existential wh-constructions. Ceplová argues for a sub-clausal analysis (modal existential wh-constructions are argued to be verb phrases (particularly vPs); their matrix predicate—“be” or “have”—is considered to be a raising verb).

Chvany, Catherine V. 1975. *On the syntax of BE-sentences in Russian*. Cambridge, MA: Slavica Publishers.

This monograph contains a brief but informative discussion of Russian modal existential wh-constructions (section 2.713 on p. 62 and footnote 2-15 on p. 234). Chvany considers the grammar of these constructions “highly mysterious” (p. 62). She uses them as evidence for “an existential *byt'* [‘be’] which co-occurs (hence is not in complementary distribution) with a tense carrier *byt'* [‘be’].” (p. 62)

Fortuin, Egbert. 2014. The existential construction in Russian: A semantic-syntactic approach. In *Dutch Contributions to the Fifteenth International Congress of Slavists: Linguistics* (Minsk, August 2013). Edited by Egbert Fortuin, Peter Houtzagers, Janneke Kalsbeek, and Simeon Dekker, 25–58. Amsterdam: Rodopi. [ISBN: 9789042038189]

Paper dedicated to Russian modal existential wh-constructions (called existential constructions). It provides a systematic analysis of all the crucial components of the construction: the wh-word, the infinitive, the matrix verb *byt'* 'be', the dative subject, and the negative element *ne*. The analysis is couched in the framework of semiotaxis.

Garde, Paul. 1976. Analyse de la tournure russe *mne nečego delat'*. *International Journal of Slavic Linguistics and Poetics* 22:43–60.

A French-language analysis of Russian modal existential wh-constructions and especially their negated version. Garde argues against the then majority view, which was that the neg-wh item is a kind of indefinite pronoun.

Holvoet, Axel. 2001. Gibt es im Slavischen infinitivische Relativsätze? Zum Satztyp poln. *nie ma co robić*, russ. *nečego delat'*. In *Studies on the syntax and semantics of Slavonic languages: Papers in honour of Andrzej Boguslawski on the occasion of his 70th birthday*. Edited by Viktor S. Chrakovskij, Maciej Grochowski, and Gerd Hentschel, 215–224. Oldenburg, Germany: Bibliotheks- und Informationssystem der Universität Oldenburg. [ISBN: 9783814207964]

A German-language study of Polish, Russian, and Baltic modal existential wh-constructions (referred to as infinitival relatives). Holvoet argues that they have diachronically developed from purpose clauses.

Holthusen, Johannes. 1953. Russisch *nečego* und Verwandtes. *Zeitschrift für Slavische Philologie* 22.1: 156–159.

German-language article about Russian modal existential wh-constructions. Holthusen holds the view that the neg-wh item is a kind of indefinite pronoun.

Mazzitelli, Lidia Federica. 2015. *The expression of predicative possession: A comparative study of Belarusian and Lithuanian*. Berlin: de Gruyter. [ISBN: 9783110412284]

Section 6.13 of this book has a brief discussion of Belarusian modal existential wh-constructions (called BKI-constructions; see Rappaport 1986, cited under *Modal Existential Wh-Constructions: Syntax of Modal Existential Wh-Constructions: Nominal Analyses of Modal Existential Wh-Constructions*).

Růžička, Rudolf. 1994. Asymmetry and parallelism between affirmative and negative (*ne*) (*est'*) *gde spat'*. *Russian Linguistics* 18.1: 53–72. <https://doi.org/10.1007/BF01814389>

Study of Russian modal existential wh-constructions (called free relatives), which also contains examples from Czech and Slovak. Růžička argues for a nominal analysis. The neg-wh item is argued to be formed in syntax—by neg-lowering.

Zubatý, Josef. 1922. Mám co dělati. *Naše řeč* 6.3: 65–71. <http://nase-rec.ujc.cas.cz/archiv.php?lang=en&art=1421>

A Czech-written article on Czech modal existential wh-constructions and embedded wh-questions. Zubatý observes that the former but not the latter allows for clitic climbing.

Other Languages

Greek modal existential wh-constructions received attention in Agouraki 2005 (cited under *Existential Interpretation of Other Wh-Constructions: Future Wh-clauses*). Basque is briefly analyzed in Rebuschi 2009. An example of an Albanian modal existential wh-construction is provided in Caponigro 2003 (cited under *Modal Existential Wh-Constructions: Basic References on Modal Existential Wh-Constructions*). Whether modal existential wh-constructions exist in languages spoken outside of Europe or geographically adjacent regions remains unclear. Some Mesoamerican languages have been studied in this context (Caponigro, et al. 2013; Kotek and Erlewine 2016; both cited under *Existential Free Relatives*); however, the pertinent constructions in these languages are likely to be existential free relatives.

Rebuschi, Georges. 2009. Basque correlatives and their kin in the history of Northern Basque. In *Correlatives cross-linguistically*. Edited by Anikó Lipták, 81–130. Amsterdam: John Benjamins. [ISBN: 9789027208187]

Section 4.1 (pp. 103–105) of this paper contains a brief discussion of Basque modal existential wh-constructions (called indefinite free relatives). Rebuschi shows that—unlike in most other languages—the “ever” morpheme (as in “whenever”) is not completely ruled out in Basque modal existential wh-constructions.

EXISTENTIAL FREE RELATIVES

The term existential free relative is due to Caponigro 2003 (cited under *Modal Existential Wh-Constructions: Basic References On Modal Existential Wh-Constructions*). It reflects the conviction that free relatives come in two core types—standard (definite) free relatives and existential (indefinite) free relatives. Existential free relatives are characterized not only by their indefinite interpretation, but also by their very limited distribution: typically, they require being embedded by an existential verb like *exist*, *be*, or *have*. Opinions are divided on the issue of whether the existential free relative subsumes the modal existential wh-construction as its subtype (which is then simply an existential free relative with a non-indicative mood and modal interpretation)—a position argued for by Caponigro—or whether they are two distinct constructions (as implied in Kotek and Erlewine 2016). Existential free relatives proper (i.e., not modal existential wh-constructions) have been described for Italian (in Caponigro 2003), two Mixtec languages (Caponigro, et al. 2013), and a Mayan language (Kotek and Erlewine 2016). The very existence of existential free relatives raises the theoretical question of why they are not available more generally.

Caponigro, Ivano, Harold Torrence, and Carlos Cisneros. 2013. Free relative clauses in two Mixtec languages. *International Journal of American Linguistics* 79.1: 61–96. <https://doi.org/10.1086/668608>

Systematic description of free relatives in two Mixtec languages—Nieves and Melchor Ocampo—paying special attention to the availability of individual wh-words and wh-phrases. Section 5 deals with existential free relatives. It should be noted that the authors do

not consider the relation between existential free relatives and modal existential wh-constructions. All the examples provided are translated by using infinitival or at least modalized relatives, thus suggesting that Mixtec existential free relatives are, in fact, modal existential wh-constructions.

Kotek, Hadas, and Michael Yoshitaka Erlewine. 2016. Unifying definite and indefinite free relatives: Evidence from Mayan. In *NELS 38: Proceedings of the 38th annual meeting of the North East Linguistic Society*. Vol. 2. Edited by Christopher Hammerly and Brandon Prickett, 241–254. Amherst, MA: GLSA Publications. [ISBN: 9781448636976]

Paper on free relatives in Chuj is the first that explicitly addresses the relation between existential free relatives and modal existential wh-constructions. The authors argue that Chuj free relatives in existential contexts are bona fide existential free relatives rather than modal existential wh-constructions.

EXISTENTIAL INTERPRETATION OF OTHER WH-CONSTRUCTIONS

Modal existential wh-constructions and existential free relatives are not the only types of wh-constructions for which an existential interpretation has been suggested or proposed. Russian **Modal Possessive Constructions** and Greek **Future Wh-Clauses** both share a good many properties with modal existential wh-constructions, including the existential construal. **Transparent Free Relatives**, on the other hand, have never been understood as a sub-kind of an existential construction. Despite that, the existing research unanimously agrees that they can be interpreted existentially—a property that is often considered in opposition to the behavior of standard free relatives. Still, even standard free relatives have been noted to exhibit existential behavior under certain conditions. This characteristic has led to the development of an analysis according to which standard free relatives are, indeed, indefinites. Despite this being a minority view, some relevant references are provided in **Existential Properties/Analyses of Standard Free Relatives**.

Modal Possessive Constructions

The modal possessive construction, characterized in Livitz 2012, is a Russian construction that shares a good many properties with the modal existential wh-construction, including the existential and modal interpretation. It differs in the type of subject involved—the modal existential wh-construction in Russian involves a dative subject, while the modal possessive construction involves a prepositional genitive subject, typical of possessive constructions in Russian. The two constructions also differ in the kinds of predicates that can embed them.

Livitz, Inna. 2012. Modal possessive constructions: Evidence from Russian. *Lingua* 122.6: 714–747. <https://doi.org/10.1016/j.lingua.2012.02.002>

Livitz analyzes Russian modal existential wh-constructions (called modal existential constructions) and what she calls modal possessive constructions, which are argued to differ from the former in a number of syntactic and semantic respects, most notably the nature of the subject (dative versus prepositional genitive).

Future Wh-Clauses

The future wh-clause is a Greek construction characterized in Agouraki 2005. It shares a great many properties with both the standard free relative and the modal existential wh-construction. It is crucially characterized by involving a future tense. One of its properties is

that it behaves as a narrow-scope existential quantifier, which makes it a candidate for an existential wh-construction.

Agouraki, Yoryia. 2005. Wh-clauses in DP-positions. In *Advances in Greek generative syntax*. Edited by Melita Stavrou and Arhonto Terzi, 285–330. Amsterdam: John Benjamins. [ISBN 9781588116246]

A detailed analysis of Greek standard free relatives, modal existential wh-constructions (referred to as irrealis free relatives), and the newly postulated future wh-clauses. All these constructions are uniformly analyzed as DPs. Future wh-clauses are analyzed as intensional definites (despite their existential character, demonstrated in the paper), and modal existential wh-constructions are analyzed as intensional indefinites.

Transparent Free Relatives

Transparent free relatives (example: *We ate what seemed to be a fish soup/the fish you caught this morning*) are always introduced by *what* (or its equivalents in other languages), which functions as the subject of an intensional (*seemed*) copular predication/equation or a small clause (*to be a fish soup/the fish you caught this morning*). The term comes from Wilder 1998, who considers these free relatives “transparent” because the embedded (equative) predicate seems to be directly “visible” to the matrix (*We ate a fish soup/the fish you caught this morning*). What is of interest here is that transparent free relatives—in contrast to standard free relatives—correspond to indefinite rather than definite DPs. For instance, transparent free relatives can function as pivots in existential *there*-constructions. The syntax of these constructions is discussed in Wilder 1998, van Riemsdijk 2000, and Grosu 2003. Grosu 2016 concentrates more on their semantics. It is worthwhile to point out that although transparent free relatives typically exhibit some kind of modality (or, more generally, intensionality), they do so in a different sense from that of modal existential wh-constructions. The modality of the latter is semantically highly restricted (to circumstantial possibility), which is not the case with the modality/intensionality of transparent free relatives.

Grosu, Alexander. 2003. A unified theory of “standard” and “transparent” free relatives. *Natural Language & Linguistic Theory* 21.2: 247–331. <https://doi.org/10.1023/A:1023387128941>

Provides the first unified analysis of standard and transparent free relatives. The special properties of transparent free relatives (as compared to the standard ones) are derived from their independent properties, such as the kind of wh-word they involve or the type of variable it binds.

Grosu, Alexander. 2016. The semantics, syntax, and morphology of transparent free relatives revisited: A comparison of two approaches. *Natural Language & Linguistic Theory* 34.4: 1245–1280. <https://doi.org/10.1007/s11049-016-9333-0>

Provides the first compositional semantics of transparent free relatives. Grosu treats them as intensional entities, whose extension potentially varies at the matrix and at the embedded index (possible world). Grosu argues that transparent free relatives can in many cases be analyzed as either definite or indefinite insofar as their intensional properties are concerned, but repeatedly stresses that their matrix extension is invariably understood as indefinite.

van Riemsdijk, Henk. 2000. Free relatives inside out: Transparent free relatives as grafts. In *PASE 8: Proceedings of the 8th Polish Association for the Study of*

English. Edited by Bożena Rozwadowska, 223–233. Wrocław, Poland: Univ. of Wrocław. [ISBN: 9788391027035]

Van Riemsdijk devises an analysis in which the “transparent” predicate of the transparent free relative is literally syntactically shared between the embedded and the matrix clause.

Wilder, Chris. 1998. Transparent free relatives. In *ZAS Papers in Linguistics 10: Papers on syntax of clefts, pseudo-clefts, relative clauses, and the semantics of present perfect*. Edited by Artemis Alexiadou, Nanna Fuhrhop, Paul Law, and Ursula Kleinhenz, 191–199. Berlin: Zentrum für Allgemeine Sprachwissenschaft.

The first paper devoted to transparent free relatives. Besides many other important observations, Wilder observes that transparent free relatives behave as indefinites rather than definites.

Existential Properties/Analyses of Standard Free Relatives

Since Jacobson 1995, standard free relatives have generally been analyzed as definite descriptions. Yet, it has occasionally been noted that free relatives appear to share some properties with indefinites. Berman 1991 notices that the denotation of free relatives can covary with variables bound by adverbial quantifiers, a covariance that he considers a property of indefinites. Wiltschko 1999 puts forth many arguments suggesting that standard free relatives are, indeed, indefinites (possibly specific indefinites). Hinterwimmer 2008 and Hinterwimmer 2013 show that, despite the properties of free relatives that make them appear indefinite, they should in fact be analyzed uniformly as definites, in line with the original analysis of Jacobson 1995.

Berman, Stephen. 1991. On the semantics and logical form of wh-clauses. PhD diss., Univ. of Massachusetts at Amherst.

Sections 3.3.3 (pp. 78–81) and 5.3.3 (pp. 195–206) of this dissertation discuss free relatives, as compared to embedded wh-questions. Berman argues that all wh-clauses, including free relatives, have the semantics of open propositions and correspond to indefinite NPs.

Hinterwimmer, Stefan. 2008. Why free relatives sometimes behave as indefinites. In *SALT 18: Proceedings from the 18th conference on semantics and linguistic theory* (University of Massachusetts at Amherst, March 2008). Edited by Tova Friedman and Satoshi Ito, 411–428. Linguistic Society of America.
<https://doi.org/10.3765/salt.v18i0.2514>

This paper explicitly addresses the conviction that free relatives are (sometimes) indefinites and proposes solutions to the relevant puzzles within the standard analysis, according to which free relatives are definites.

Hinterwimmer, Stefan. 2013. Free relatives as kind denoting terms. In *Genericity*. Edited by Alda Mari, Claire Beyssade, and Fabio Del Prete, 140–156. Oxford: Oxford Univ. Press. [ISBN: 9780199691814]
<https://doi.org/10.1093/acprof:oso/9780199691807.003.0004>

Proposes an analysis of free relatives, according to which they denote kinds (a subtype of definite descriptions). Kinds can sometimes be shifted to existential quantifiers over instances of kinds, which explains the apparent indefinite nature of (some) free relatives.

Jacobson, Pauline. 1995. On the quantificational force of English free relatives. In *Quantification in natural languages*. Vol. 2. Edited by Emmon Bach, Eloise Jelinek, Angelika Kratzer, and Barbara Partee, 451–486. Dordrecht, The Netherlands: Kluwer. [ISBN: 9780792333517]

Contains the original and very influential proposal, according to which free relatives are definite descriptions.

Wiltschko, Martina. 1999. The syntax and semantics of free relatives. In *WCCFL 17: Proceedings of the 17th west coast conference on formal linguistics*. Edited by Kimary N. Shahin, 700–712. Somerville, MA: Cascadilla Press. [ISBN: 9781575861845]

Contends that free relatives are indefinites. Their specificity is argued to account for their quasi-definite properties.