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PROGRAMA DE DOCTORADO EN LENGUAS Y CULTURAS

TESIS DOCTORAL

A family-resemblance analysis of the middle construction: a functional-cognitive approach

Un análisis de parecido familiar de la construcción media: un enfoque funcional-cognitivo

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TÍTULO DE LA TESIS: A family-resemblance analysis of the middle construction: a functional-cognitive approach // Un análisis de parecido familiar de la construcción media: un enfoque funcional-cognitivo

DOCTORANDO/A: Macarena Palma Gutiérrez

INFORME RAZONADO DEL/DE LOS DIRECTOR/ES DE LA TESIS
(se hará mención a la evolución y desarrollo de la tesis, así como a trabajos y publicaciones derivados de la misma).

La investigación doctoral de Macarena Palma constituye un intento sólido de aunar propuestos funcionalistas y cognitivistas en su estudio de las construcciones medias en lengua inglesa. El objetivo central de esta tesis es contribuir a delimitar los rasgos léxico-semánticos y pragmático-discursivos que regulan la gramaticalidad de estas estructuras. La doctoranda parte de la hipótesis de que los modelos exclusivamente lexicistas propugnados por autores como Pinker (1989), Levin (1993) y Rapapport y Levin (1998), no pueden dar cuenta del proceso de interacción léxico-construccional de un modo enteramente satisfactorio. Para realizar su análisis de la construcción media en inglés, el estudio de Macarena Palma examina los efectos prototípicos de la construcción media con el fin de explorar las características cuasi-agentivas de la entidad sujeto, la aspectualidad del verbo, el rol del agente implícito y la naturaleza del adjunto. Este trabajo vincula la tipología semántica de Davidse y Heyvaert (2007) con la teoría de la estructura de *Qualia* postulada por Pustejovsky (1991, 1995) a través de la idea de la simetría de la estructura subyacente del sintagma nominal y el predicado de Rijkhoff (2005, 2008). La propuesta es original porque en ella se propone una nueva tipología de entidades inanimadas en función de Sujeto, refinando así el análisis composicional de *Qualia* de Yoshimura (1998) y Yoshimura y Taylor (2004).

La doctoranda ha compilado un corpus de ejemplos contextualizados de expresiones medias prototípicas y marginales (incluyendo ejemplos de las extensiones metonímicas menos generalizadas), usando la herramienta *Sketch Engine*. Su estancia doctoral en Lovaina, Bélgica (KU Leuven), le permitió trabajar en la compilación y análisis del corpus bajo la supervisión del profesor Dirk Geeraerts. El análisis detallado de los ejemplos centrales y marginales (o menos prototípicos) de dicho corpus ha permitido a la doctoranda ofrecer una visión completa de la categoría gramatical estudiada, cuyos miembros se conectan mediante relaciones de "parecidos de familia" (*family resemblance*) en el sentido wittgensteiniano.

Los directores consideramos que esta tesis cumple con los requisitos exigibles para optar a la mención internacional. Macarena Palma ha demostrado un alto grado de compromiso académico y dedicación desde que inició sus estudios de doctorado, cumpliendo rigurosamente su plan de Investigación y Formación. Citamos a continuación algunas de las publicaciones derivadas de esta tesis doctoral:

Palma Gutiérrez, M. (2019a) Symmetry in the underlying structure of the nominal and the predicate in the English middle construction: Exploring qualia structure and genericity. *Estudios Interlingüísticos* 7, 170-185.

Palma Gutiérrez, M. (2019b) Semantic prosody in middle construction predicates: Exploring adverb + verb collocation in middles. En G. Corpas Pastor y R. Mitkov (eds.), *Computational and Corpus-Based Phraseology* (pp. 345-359). Cham, Suiza: Springer. (La comunicación de la que deriva esta publicación obtuvo el premio al mejor trabajo presentado por un investigador/a joven en el congreso internacional *Europhras 2019.*)

Palma Gutiérrez, M. (2021a) Un enfoque contrastivo del sujeto +animado en la construcción media inglesa y española. En G. Corpas Pastor, M.R. Bautista Zambrana y C.M. Hidalgo-Ternero (eds.), *Sistemas fraseológicos en contraste: enfoques computacionales y de corpu*s (pp. 101-120). Albolote, Granada: Comares.

Palma Gutiérrez, M. (2021b) Prototype effects in the process of compositional cospecification in the middle construction. *Estudios Interlingüísticos* 9, 157-172.

Palma Gutiérrez, M. (aceptado para publicación) The middle construction and some machine translation issues: Exploring the process of compositional cospecification in quality-oriented middles. En J. Monti, R. Mitkov y G. Corpas (eds.), *Recent Advances in Multiword Units in Machine Translation and Translation Technology.* Amsterdam: John Benjamins.

Por todo ello, se autoriza la presentación de la tesis doctoral.

Córdoba, 23 de diciembre de 2021

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Abstract

This doctoral dissertation aims at delimiting the lexical-semantic and discourse-pragmatic features that regulate well-formedness in middle expressions and which could legitimate the adscription of a particular nominal, verb, or adjunct to the middle construction in English. The middle construction is here analysed in terms of its prototype effects (*cf.* Taylor, 1995; Langacker, 2008; Sakamoto, 2001; Goldberg, 1995; and Marín Arrese, 2001 and 2013), hence accommodating not only prototypical instances but also marginal structures largely ignored in the literature. This dissertation examines the prototype effects of the middle construction by exploring the Agent-like features of the Subject entity, the aspectuality of the verb, the role of the implicit Agent, and the nature of the middle adjunct. The structures analysed here conform a family of intransitive constructions that are understood as segments on the Unergative – Middle – Ergative continuum.

The idea that the middle construction can actually be considered as a prototype category accommodating central and marginal structures contrasts with the postulates of the projectionist model (*cf.* Pinker, 1989; Ackema and Schoorlemmer, 1994; Hale and Keyser, 2002; and Fagan, 1992). The projectionist approach cannot account for the process of lexical-constructional interaction of the middle construction in an entirely satisfactory way. This is so because it does not attend to the prototype effects and discourse-pragmatic factors surrounding the middle construction, since it merely focuses on the structural information (*cf.* Hundt, 2007: 60; and Lemmens, 1998: 4). Therefore, it seems to be pertinent to apply the notions of 'family-resemblance' (*cf.* Wittgenstein, 1958) and 'prototype effects' (*cf.* Taylor, 1995) to the study of the middle construction, following cognitive-linguistic perspectives such as those of Lakoff (1987), Langacker (1987, 1991, 2008), Taylor (1995), and Goldberg (1995, 2006). The theory of prototypes allows for the application of the idea of a family-resemblance relation among different but related structures in order to justify the accommodation of non-prototypical cases into the prototype category.

This doctoral dissertation applies a usage-based methodology to carry out a corpus study of contextualised examples. The compilation process has been conducted through the 'Concordance' within the Sketch Engine tool. The total sample retrieved and analysed here is 14099 instances, based on colloconstructional schemas which combine ±Animate

subject entities with 254 different verbal predicates (*cf.* Levin, 1993), collocated with middable adjuncts (*cf.* Davidse and Heyvaert, 2007).

The family-resemblance analysis challenges the traditionally accepted restricting features associated with the middle construction, thus demonstrating that both central and marginal structures can be accommodated within the middle prototype category. This is due to the fact that the segments of the continuum share certain commonalities with respect to their syntactic, semantic, pragmatic and cognitive underlying schemas, as well as a functional symmetry in the underlying structure of the subject and the verb (*cf.* Rijkhoff, 1991, 2002, 2008a and 2008b). In addition, the family-resemblance analysis of the middle prototype category is also based on the similarities and differences found across the family members examined in terms of their processes of Compositional Cospecification (*cf.* Yoshimura, 1998; Yoshimura and Taylor, 2004). Such process involves the specification of the semantics of the predicate in accordance with the meaning of the nominal and the semantic value of the adjunct in the middle construction.

The family of constructions analysed includes: (i) prototypical action-oriented middles; (ii) prototypical ergative-like middles; (iii) the metonymically-motivated extensions of the action-oriented prototype (namely, Locative, Means, and Circumstance-of-Instrument middles); and (iv) metonymically-motivated extensions from the ergative-like prototype (namely, Agent-Instrument and Experiencer-Subject middles).

Corpus data reveal that prototypical ergative-like middles are the most productive group (with 6801 instances, 68.24%), followed by prototypical action-oriented-middles (with 3633 examples, 25.77%). Among the metonymically-motivated extensions, the most productive structures are Experiencer-Subject middles (with 1789 instances, 12.69%), followed by Agent-Instrument middles (with 286 examples, 2.03%), whereas the least frequent types are Locative middles (with 48 instances, 0.34%), Means middles (with 60 examples, 0.43%), and Circumstance-of-Instrument middles (with 7 instances, 0.05%). The rest of corpus examples belong to the semantic types of Destiny- and Result-oriented middles (with 1475 instances, 10.46%).

Resumen

El propósito de esta tesis es delimitar las características léxico-semánticas y discursivo-pragmáticas que regulan la formación de expresiones medias y que podrían legitimar la adscripción de un determinado nominal, verbo o adjunto a la construcción media inglesa. La construcción media se analiza en términos de sus efectos prototípicos (cf. Taylor, 1995; Langacker, 2008; Sakamoto, 2001; Goldberg, 1995; y Marín Arrese, 2001 y 2013), acomodando no sólo ejemplos centrales sino también estructuras marginales generalmente ignoradas en la literatura. Esta tesis doctoral examina los efectos prototípicos de la construcción media mediante la exploración de las características pseudo-agentivas de la entidad sujeto, la aspectualidad del verbo, el rol del argumento agente implícito y la naturaleza del adjunto. Las estructuras analizadas forman una familia de construcciones intransitivas que se entienden como segmentos del continuo Inergativo – Medio – Ergativo.

La idea de que la construcción media, de hecho, pueda considerarse como una categoría prototípica que acomoda estructuras centrales y periféricas contrasta con los postulados del modelo proyeccionista (cf. Pinker, 1989; Ackema y Schoorlemmer, 1994; Hale y Keyser, 2002; y Fagan, 1992). Dicho modelo no puede dar cuenta del proceso de interacción léxico-construccional de la construcción media de forma satisfactoria. Esto se debe a que el modelo proyeccionista no atiende a los efectos prototípicos y los factores discursivo-pragmáticos de la construcción media, ya que se centra únicamente en la información estructural (cf. Hundt, 2007: 60; y Lemmens, 1998: 4). Por ello, parece pertinente aplicar las nociones de 'parecido familiar' (cf. Wittgenstein, 1958) y 'efectos prototípicos' (cf. Taylor, 1995) al estudio de la construcción media, siguiendo perspectivas cognitivistas tales como las de Lakoff (1987), Langacker (1987, 1991, 2008), Taylor (1995) y Goldberg (1995, 2006). La teoría de los prototipos permite la aplicación de la idea de una relación de parecido familiar entre estructuras distintas pero relacionadas, justificando así la acomodación de casos marginales dentro de la categoría prototípica.

Esta tesis doctoral aplica una metodología basada en el uso para llevar a cabo un estudio de corpus de ejemplos contextualizados. El proceso de compilación se ha llevado a cabo a través de la sección 'Concordancia' de la herramienta Sketch Engine. La muestra total analizada aquí es de 14099 ejemplos, basados en esquemas colo-construccionales en

los que se combinan entidades de sujeto ±Animadas y 254 predicados verbales distintos (cf. Levin, 1993), colocados con adverbios compatibles con la construcción media (cf. Davidse y Heyvaert, 2007).

El análisis de parecido familiar cuestiona las características restrictivas tradicionalmente asociadas con la construcción media, demostrando así que tanto las estructuras centrales como las marginales pueden acomodarse dentro de la categoría prototípica media. Esto se debe a que todos los segmentos del continuo comparten ciertas semejanzas con respecto a sus esquemas subyacentes de naturaleza sintáctica, semántica, pragmática y cognitiva, así como una simetría funcional en la estructura subyacente del sujeto y el predicado (cf. Rijkhoff, 1991, 2002, 2008a y 2008b). Además, el análisis de parecido familiar de la categoría prototípica media también se basa en las similitudes y diferencias encontradas entre los miembros de la familia de estructuras examinadas en función de sus procesos de Coespecificación Composicional (*cf.* Yoshimura, 1998; Yoshimura y Taylor, 2004). Dicho proceso se refiere a que la semántica del verbo se especifica de acuerdo con el significado del nominal y el valor semántico del adjunto en la construcción media.

La familia de construcciones analizadas incluye: (i) medias prototípicas orientadas a la acción; (ii) medias prototípicas de naturaleza ergativa; (iii) extensiones metonímicamente motivadas de las medias prototípicas orientadas a la acción (concretamente, locativas, de medio e instrumentales de circunstancia); y (iv) extensiones metonímicamente motivadas de las medias prototípicas de naturaleza ergativa (concretamente, agentivo-instrumentales y de sujeto experimentador).

Los datos del corpus examinado revelan que las medias prototípicas de naturaleza ergativa son las más productivas (con 6801 ejemplos, 68.24%), seguidas de las medias prototípicas orientadas a la acción (con 3633 ejemplos, 25.77%). Entre las extensiones motivadas metonímicamente, las estructuras más productivas son las medias de sujeto experimentador (con 1789 ejemplos 12.69%), seguidas de las medias agentivo-instrumentales (con 286 ejemplos, 2.03%), mientras que las menos frecuentes pertenecen a la clase de locativas (con 48 ejemplos, 0.34%), de medio (con 60 ejemplos, 0.43%), e instrumentales de circunstancia (con 7 ejemplos, 0.05%). El resto de ejemplos del corpus pertenecen a los tipos semánticos de medias orientadas al Destino y Resultado (con 1475 ejemplos, 10.46%).

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Figure 20. Frequency of appearance of the middles examined according to their classification

List of abbreviations

Adv	Adverb
AG	Agent
Arb/ARB	Arbitrary
C-context	Conceptual/Cognitive/Mental component
Ch.	Chapter
CxG	Construction Grammar
D-context	Discourse component
E-context	Situational/External component
enTenTen13	English Web 2013 Corpus
FD	Force Dynamics
FG	Functional Grammar
FDG	Functional Discourse Grammar
G-context	Grammatical component
ICM	Idealized Cognitive Model
L0	Kind layer
L1	Quality layer
L2	Quantity layer
L3	Location layer
L4	Discourse-Referential layer
LCM	Lexical Constructional Model
LCS	Lexical Conceptual Structure
lm	Landmark
N	Noun
NP	Noun Phrase
PAT	Patient
Prep	Preposition
Q_A	Agentive *qualia*
Q_C	Constitutive *qualia*
Q_F	Formal *qualia*
Q_T	Telic *qualia*
RCG	Radical Construction Grammar

RRG	Role and Reference Grammar
SFG	Systemic Functional Grammar
TAM	Tense-Aspect-Modality
tr	Trajector
UG	Universal Grammar
V	Verb
VP	Verbal Phrase

1.Introduction

1.1. Why study the middle construction?

This dissertation project is based on the hypothesis that the middle construction cannot be considered a discrete category of its own, but rather a *prototype category*. Consequently, it can be analysed in terms of its *prototype effects* (*cf.* Taylor, 1995; Langacker, 2008; Sakamoto, 2001; Goldberg, 1995), thus accommodating not only prototypical instances but also peripheral members generally ignored in the literature. This process of lexical-constructional subsumption,[1] based on the integration of lower-level (*i.e.,* lexical) semantic structures into higher-level (*i.e.,* constructional) structures (*cf.* Cortés Rodríguez and Mairal Usón, 2013: 229), is accounted for by virtue of the metonymically-motivated extensions of middles within a family of constructions in which certain intransitive structures are seen as segments on the Unergative – Middle – Ergative continuum (see Section 2.2). Along the lines of Taylor (1995), Langacker (2008), Sakamoto (2001), Goldberg (1995, 2006), Davidse and Heyvaert (2007), Marín Arrese (2003, 2011), and others, the syntactic, semantic, pragmatic, and cognitive commonalities or schemas found among the segments of the continuum are examined (see Section 2.3.2). The members of the family of structures explored in Section 2.3.2 and illustrated in Figure 3 are the following: Action-oriented middles and their metonymically-motivated extensions (Locative, Means, and Circumstance-of-Instrument middles), as well as Ergative-like middles and their metonymically-motivated extensions (Experiencer-Subject and Agent-Instrument middles).

The idea that the middle construction, in fact, can be analysed as a *radial category or network* (*cf.* Lakoff, 1987: 91), or in general terms, as a prototype category accommodating central and marginal structures contrasts with the postulates of projectionist models advocated by authors like Pinker (1989), Ackema and

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[1] The term 'subsumption' is used in the framework of analysis of the Lexical Constructional Model (LCM) to refer to a cognitive process which is regulated by the internal and external conditions or restrictions imposed on the semantic compatibility between verbal predicates and constructions (*cf.* Cortés Rodríguez, 2009: 247; see also Mairal Usón and Ruiz de Mendoza, 2009: 184).

Schoorlemmer (1994), Hale and Keyser (2002), and Fagan (1992), among others. The projectionist approach cannot account for the process of lexical-constructional interaction of the middle construction in an entirely satisfactory way.[2] In fact, verb-centred approaches fail to observe that "the constructions in which verbs occur are meaningful in and by themselves" (Lemmens, 1998: 38). The projectionist model assumes that the syntactic behaviour of a verb is largely determined by its meaning, therefore implying that verbs which share common semantic features, as a matter of fact, participate in the same syntactic alternations.

However, the formalist perspective of the projectionist model does not attend to the prototype effects and discourse-pragmatic factors surrounding the middle construction, since it merely focuses on the structural information (*cf.* Hundt, 2007: 60; and Lemmens, 1998: 4). Therefore, it seems to be pertinent to apply the notions of 'family-resemblance' (*cf.* Wittgenstein, 1958) and 'prototype effects' (*cf.* Taylor, 1995) to the study of the middle construction, following cognitive-linguistic perspectives such as those of Lakoff (1987), Langacker (1987, 1991b, 2008), and Taylor (1995). As detailed in Section 2.3.2, the theory of prototypes allows for the application of the idea of a family-resemblance relation among different but related structures in order to justify the accommodation of non-prototypical cases into the prototype category.

The purely lexicist/projectionist models maintain that the syntactic behaviour of a verb is determined by its meaning, whereas the cognitivist (including the constructionist) models focus on the lexical-semantic and discourse-pragmatic restrictions which are imposed by the construction itself and the contextual information supplied. As Goldberg states, "[n]arrowly defined verb classes, then, are implicitly represented as clusters of semantically related verbs known to occur within a given construction"; however, by virtue of the prototype nature of the middle construction "[n]ew or previously unclassified verb forms are attracted to existing clusters on the basis of similarity to existing cases" (1995: 133).

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[2] However, as explained in Chapter 2, scholars like Rappaport and Levin (1998: 106) present a conciliatory viewpoint between the projectionist and the constructionist perspectives by arguing that both approaches mention the basic distinction between 'structural' and 'idiosyncratic' components of verb meaning. The main difference between them concerns the definition of the structural aspect of meaning (*i.e.*, the lexical semantic template) as either residing in the lexical entry of individual words or being rather associated with the syntactic structure, as respectively maintained by projectionists and constructionists.

Therefore, according to the Goldbergian constructionist approach, a verb and its arguments are determined by the construction itself, since it is precisely the construction – understood as a conventional pairing of form and meaning (Goldberg, 2006: 1), including pragmatic and encyclopedic meaning (*cf.* Langacker, 1987, 2008; Taylor, 1995) – which determines the possibilities of combining a given verb with a certain argument structure. However, the LCM notion of 'construction' goes further than the Goldbergian conventionalised pairing of form and function. In fact, as detailed in Ruiz de Mendoza and Galera Masegosa (2014: 37), the LCM incorporates the idea of 'replicability' into the traditional definition of 'construction'. This notion deals with "cases of novel linguistic output that is not only meaningful but also acceptable and thus reproducible and linguistically exploitable in terms of competent native speaker's judgments" (2014: 37). In doing so, as the authors put it, the notion of 'construction' is understood as "a cognitive construct that results from speakers within a speech community making meaning productively within specific communicative contexts" (2014: 37). That is, the traditional parts of a construction (form and meaning) are reviewed in the LCM frame as follows: "[f]orm is seen as realizational of meaning and meaning is seen as cued for by form" (2014: 37). Remarkably, for a usage-based methodology, this implies that

> the analyst is required to examine form within a whole range of contexts of use for evidence of what conceptual configurations are being called upon when dealing with actual linguistic output. To the extent that this task becomes possible, it will allow the analyst to *correlate form with intended meaning within its context of use*. (Ruiz de Mendoza and Galera Masegosa, 2014: 37; emphasis added).

In addition, the LCM is one of those models that attempt to bring both approaches (projectionist and constructionist) close to each other (*cf.* Ruiz de Mendoza and Galera Masegosa, 2014; Ruiz de Mendoza, 2013; Cortés-Rodríguez and Mairal Usón, 2013; Ruiz de Mendoza and Mairal Usón, 2007a, 2008). This is so because the LCM follows a functional and cognitive orientation and advocates the rapprochement between the theoretical and methodological positions of the lexicist and (cognitive) constructionist approaches. In fact, two of the main tools for analysis used in this dissertation are taken from the postulates of the LCM, namely, the application of the theory of *qualia* structure for the conceptual-semantic analysis of the middle Subject in cospecification with the semantics of the verb and the adjunct (see Section 3.1), and a revised version of the high-level metonymic schema operating in the middle construction (see Section 2.3.2).

This dissertation also aims at contributing to this functional-cognitive conciliatory stance with respect to the analysis of the middle structure. Therefore, the postulates of those formalist approaches that aspire to identify a class of middle verbs attending only to their lexical properties should be revised, whereas a more global characterization of the middle construction is proposed here, paying due attention to the encyclopedic semantic properties of the middle Subject in connection to the meaning of the verb and the value of the adjunct (see Yoshimura, 1998, and Yoshimura and Taylor, 2004), as well as focusing on the idiosyncratic cognitive and discourse-pragmatic information surrounding the utterance (*cf.* Barcelona, 2009; Kövecses and Radden, 1998; Ruiz de Mendoza and Peña Cervel, 2008; Ruiz de Mendoza and Mairal Usón, 2007).

As stated above, this dissertation project aims at delimiting the lexical-semantic and discourse-pragmatic features that regulate well-formedness in middle expressions and which could legitimate the adscription of a particular nominal, verb, or adjunct to the middle construction in English. To do so, it is necessary to examine the prototype effects of the middle construction in order to explore the Agent-like features of the Subject entity, the aspectuality of the verb, the role of the implicit Agent, and the nature of the middle adjunct (see Section 2.3. in this regard). Accordingly, the middle construction, understood as a prototype category, is analysed in terms of a family-resemblance relation which accommodates central and peripheral segments on the Unergative – Middle – Ergative continuum. Such family-resemblance relation also allows for the elaboration of a typology of patterns of shift of semantic weight within the process of Compositional Cospecification across the middle prototype category (see Section 3.1 in this regard).

1.2. Framework of the analysis: A functional-cognitive perspective

According to scholars like Nuyts (2007: 546) and Gonzálvez-García and Butler (2006: 42), the task of distinguishing between functional and cognitive models is more a matter of degree than a matter of content itself due to the strong mutual influence of both models on each other. Such interrelation enables the creation of a continuum between functionalism and cognitivism, hence providing a blending space for an approach that combines features of both models: the merging group of *functional-cognitive linguistics*.

Formal linguistics and Functional linguistics have traditionally been catalogued as "poles of a timeless dichotomy" (Newmeyer, 2016: 129), whereas it is much more complicated to establish a clear-cut boundary between functional and cognitive models,[3] which, by the way, seem to show "a total or partial opposition to (…) Chomskyan linguistics" (Gonzálvez-García and Butler, 2006: 83).

Nevertheless, even though functional linguistics "is most often opposed to formalism (…), this dichotomy, while useful, is somewhat naively over-simple" (Gonzálvez-García and Butler, 2006: 45). In a similar fashion, "in distinguishing between functionalist and cognitivist approaches, (…) the differences are not absolute, but a matter of emphasis and degree" (Gonzálvez-García and Butler, 2006: 40).

Generally, formal linguistics is characterised by focusing on formal structure, the scarce attention paid to semantics, and its refusal to analysing discourse information. Formalism "denies the relevance of language use to understanding linguistic structure" (Nuyts, 2007: 548) and, instead, it is frequently centred on the elaboration of rules of

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[3] According to Nuyts (2007: 544-545), the 'core' body of cognitivist research is formed by the following scholars focusing on semantic analysis: Talmy (1985, 1988, 2000), Lakoff (1987), Fauconnier's semantic 'mental spaces' theory (1985, 1997), Langacker (1987, 1991a), Taylor (1995, 2002), and the grammatical models or 'conglomerate of approaches' under the label of 'Construction Grammar', namely, Goldberg's (1995, 2006) version of Construction Grammar (CxG), and Croft's (2001) Radical Construction Grammar (RCG). On the other hand, as Butler and Gonzálvez-García (2014) and Gonzálvez-García and Butler (2006) clarify, there are two types within the spectrum of functionalist approaches: (i) those models originated in Europe; and (ii) those models developed in the USA. Some of the most prominent European models cited are Dik's (1997) Functional Grammar (FG), Hengeveld and Mackenzie's (2006, 2008, 2010) Functional Discourse Grammar (FDG), and Halliday's (1994) Systemic Functional Grammar (SFG). For their part, some of the most relevant models and figures within the American branch of functionalism are Van Valin's (1993) Role and Reference Grammar (RRG), Givón (1984, 1990, 1995), Thompson (1991, 2002), Hopper (1987, 2011), and Du Bois (1985).

transformational/generative nature. On the other hand, functionalism largely assumes that "linguistic structure cannot be analyzed independently of the uses to which it is put" (Nuyts, 2007: 548). In other words, "the fundamental principle of functionalism is that language is first and foremost a means of communication between human beings in social and cognitive contexts" (Butler and Gonzálvez-García, 2014: 3; see also Van Valin and LaPolla, 1997: 11, and Bybee and Hopper, 2001). That is, as Nuyts (2007: 548) comments, functionalism focuses on exploring "how language appears in actual contexts", whether possessing a *representational/semantic* or an *interpersonal/discourse-pragmatic* nature. The former involves the relation between transmission of information and world knowledge, whereas the latter refers to interactive or social contexts which involve language use and its discursive nature, as well as interpersonal relationships (see also Section 3.2 in this regard).

Contrary to the formalist postulate that language, and thus syntax, is autonomous, Functional Linguistics maintains that language is primarily shaped by external factors (basically, sociocultural and cognitive ones), and hence syntax "is not self-contained or autonomous, but rather is at least partially adapted to the meanings it is there to convey" (Butler and Gonzálvez-García, 2014: 3; see also Bybee and McClelland, 2005, on the parallel between language and other cognitive systems). Accordingly, functional linguistics is characterised by focusing on issues like

> the flexibility of language in response to communicational demands; the frequent use of naturally occurring data;[4] the importance of studying language beyond the sentence domain, to include discourse patterning; the typological orientation of many functional approaches; and the constructivist rather than nativist stance taken in relation to language acquisition. (Butler and Gonzálvez-García, 2014: 3)

In addition, as Newmeyer explains, both formalism and functionalism carry certain drawbacks in favour of the other. For example, in the case of formal linguistics, the

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[4] Even though the use of authentic data seems to be a public demand in most functional models, in practice, they make little use of corpus data. In general terms, Dik's (1997) Functional Grammar (FG) uses primarily artificial or constructed examples. In addition, as Gonzálvez-García and Butler (2006: 60) write, scholars belonging to the group of Functional Discourse Grammar (FDG) "have discussed the dynamic application of the model to the complexities of conversational data, though the model itself was not initially developed on the basis of such authentic data" (see also Mackenzie, 2000, 2004, in this respect). Besides, advocates of the branch of Role and Reference Grammar (RRG) are basically sympathetic to the use of authentic data; however, in practice, this type of material is not frequently used (see Van Valin and LaPolla, 1997, in this regard). Contrary to this tendency in functionalism, both the Hallidayan Systemic Functional Grammar as well as the Givonian version of functionalism chiefly employ authentic linguistic data compiled in corpus databases (see Halliday and Matthiessen, 2004, and Givón, 1984: 8, respectively).

principal difficulty lies in the fact that "any formal account relies on a web of underlying hypotheses that are themselves often highly tentative" (2016: 153). On the other hand, the major weakness involving functional analysis has to do with the fact that "the over-availability of plausible external motivations, each potentially pulling in a different direction, can lead to the vacuity of any particular functional explanation" (2016: 153).

However, some formalists show themselves "amenable to the *idea* of functional explanation" (Newmeyer, 2016: 145). In fact, Chomsky's minimalist programme has provided a number of functional explanations for different grammatical aspects. Even though, in general terms, formalism seems to accept functional explanation as complementary to their own, the opposite does not happen frequently.

Moreover, scholars like Newmeyer reconcile both 'poles' of the eternal dichotomy by explaining that, even though formal and functional linguistics pursue different linguistic explanations, "there is no inconsistency in advocating (and practicing) both modes of explanation" (2016: 129). Newmeyer argues in favour of the compatibility of formal and functional explanations by commenting that "it might turn out that at a certain level, both theories are correct" (2016: 150). For instance, certain formal rules and principles explored in the context of Universal Grammar (UG), like those regarding theta-role assignment and Case Theory in NP-movement transformations, might be useful when analysing specific languages. Therefore, formal explanation, when abandoning this universal perspective in favour of the analysis of the peculiarities of a language, can complement and even be reconciled with functional explanation (*cf.* Newmeyer, 2016: 150).

Let us move to the analysis of similarities and differences existing between functional and cognitive models. Along the lines of Langacker (2007: 422), Nuyts argues that Cognitive Linguistics is a model within the wide range of functionally oriented linguistics, given that "its approach to language is in line with the basic premises of linguistic functionalism" (Nuyts, 2007: 548). That is, Nuyts differentiates between 'Functional Linguistics' and 'functionally oriented linguistics', the former referring exclusively to those models that explore functional explanation, whereas the later involves a more general and heterogeneous group of approaches in which Cognitive Linguistics finds its own place. Particularly, Nuyts declares that the research goal of cognitive-oriented approaches involves "discovering the organization and operational

principles of the systems that are 'implemented' (…) in the human brain and are responsible for producing and interpreting linguistic behavior" (2007: 549).

Accordingly, Nuyts (2007: 544) comments on the difficulties to establish the borderline between Functional and Cognitive Linguistics by arguing that the criteria that would distinguish Cognitive Linguistics from other functionally oriented approaches are scarce. As the author puts it, "any delimitation of Cognitive Linguistics is bound to be, to some extent, arbitrary, or inspired by nonscientific criteria, such as social ones"; therefore, "opinions about where to draw the line can easily diverge" (Nuyts, 2007: 544). In a similar fashion, Gonzálvez-García and Butler coincide with Nuyts' (2007) analysis and comment that

> [c]ognitivist models accept the functionalist premise that language structures cannot be fruitfully analysed independently of the uses to which language is put, while many (though not all) functionalists accept the need to discover the properties of the cognitive systems which underlie the production and interpretation of language. (Gonzálvez-García and Butler, 2006: 42)

That is to say, cognitivists share a basic idea with functionalists, which, by the way, seems to be diametrically opposed to Chomskyan formalism: language, and thus syntax, is not autonomous, but it is rather understood as a means of *communication* which depends on extralinguistic factors related to the cognitive as well as the sociocultural context of the language users.

In other words, both Functional and Cognitive approaches "reject a 'competence' view of grammar of the kind espoused by Chomskyan Generative Grammar, in which linguistic knowledge is considered fully independent of linguistic performance" (Nuyts, 2007: 554). As Goldberg assumes, "knowledge of language is knowledge" (1995: 6; 2006: 59), therefore denying Chomsky's distinction between competence and performance. In addition, Functional and Cognitive approaches also reject the traditional generative understanding of the modularity of the language capacity in the human brain in favour of a view of "the linguistic system as an integrated subpart of human cognition" (Nuyts, 2007: 554). That is, both cognitivists and most functionalists seem to have a concern for 'cognition' as far as grammar is thought to be interconnected to other

cognitive dimensions or abilities like perception, memory, categorization,[5] or attention (see Langacker, 1998: 1; Nuyts, 2007: 549-554; and Croft, 2001: 3).

In addition, both approaches follow a usage-based methodology, "according to which language is seen in relation to its use, and so both are opposed to the mainstream generativist position, in which the structure is divorced from use" (Gonzálvez-García and Butler, 2006: 42). For instance, Croft (2003: 111) assumes that the features of language use define and specify the properties of the language system, thus admitting that there exists a dynamic and intimate relationship between competence and performance.

Therefore, distinguishing between functional and cognitive labels is more a matter of gradience than a matter of content itself. In fact, Cognitive Linguistics "has concentrated on *semantic phenomena*, particularly from the viewpoint of *conceptualization and categorization*, while functional linguistics has tended to focus on *grammatical structure*, though always in the light of the *meanings* conveyed" (Gonzálvez-García and Butler, 2006: 42, emphasis added).

More specifically, Nuyts (2007: 548-550) points at the exhaustive analysis carried out by Cognitivism on the *conceptual semantic* dimensions of language from a chiefly synchronic orientation, whereas Functionalism focuses on the *communicative* dimensions of language at the level of discourse structure from a primarily typological and diachronic perspective.[6] In other words, Cognitive Linguistics is fundamentally focused on semantic phenomena such as "categorization and schematization in conceptualizing the world (cognitive models, mental spaces, type-token relations, metaphorization, imagery, etc.)", whereas Functionalism is essentially devoted to, for example, discourse structure and "phenomena of sentence modification and evaluation, that is, what is often called 'Tense-Aspect-Modality', or 'TAM', marking" (Nuyts, 2007: 550).

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[5] Langacker (1991b: 2, 47-48) defines the notion of 'categorization' as those processes and structures used by human beings to impose a certain order on their own experiences. In addition, Langacker (1987, 2008) and Goldberg's (1995: 73-81) conception of this notion is connected to the idea of *prototypes*. A closely-related concept, which is also fundamental in lexical and constructional semantics, is that of '*construal'*, defined by Langacker (1991b: 546) as a mental process by which the language user structures a determined state of affairs in order to express it linguistically.

[6] Even though the cognitive approaches of Langacker (1998: 259), Kay and Fillmore (1999), and Goldberg (2006) include vague typological considerations, they are mainly concerned with the study of the English language. On the other hand, Croft's (2001) RCG is crucially committed to the analysis of cross-linguistic patterns and "the structural diversity of *all* languages" (Croft, 2001: 362, emphasis in original).

Although Cognitive Grammar is not primarily focused on the analysis of discourse structure, Langacker (2001) pays due attention to the relation between discourse and linguistic structures, basically exploring how discourse context builds and manipulates conceptual structures. In a similar line, Goldberg's (1995, 2006) version of CxG understands factors involving discourse information as conducive to the general interpretation of a construction, also taking into account other phenomena like lexical and constructional semantics. In other words, in the Goldbergian sense, context plays an essential role in determining not only the acceptability but also the interpretation of a given construction. In addition, the concept of 'Tense-Aspect-Modality' is a central one in many functional grammar models, particularly, in those based on "the proposals for 'layered' or 'hierarchical' representations of operators and adverbial/satellites in Functional Grammar and Role and Reference Grammar" (Nuyts, 2007: 551). In this view, Rijkhoff's (1991, 2002, 2008) work is considered one of the major representatives of this type of analysis of grammatical phenomena within functionally oriented approaches and the one which will be revised in section 3.2 of the present dissertation with the purpose of exploring the symmetry in the underlying structure of the NP and the verbal predicate in the middle construction.

On the other hand, one of the main differences found between both approaches refers to the fact that functionalism proposes "a system of rules and principles which compose utterances", whereas cognitivism emphasises "the large inventory of coded patterns, positing only simple rules of combination or 'unification'" (Gonzálvez-García and Butler, 2006: 42). Therefore, cognitivism chiefly takes a monostratal perspective (*i.e.*, non-derivational (see Langacker, 2005; Goldberg, 2003)) by which 'transformations' are not understood in the sense invoked by generativists, but rather as a way of capturing connections among distinct conceptualizations (Langacker, 1987: 138).

Anyway, when exploring the potential sources of divergence, no radical opposition will be revealed. Instead, "differences rarely involve real incommensurability: they are mainly cases of complementarity or relatively minor differences in opinion" (Nuyts, 2007: 547). In fact, "no doubt, Cognitive Linguistics and Functional Linguistics can learn a lot from each other in many respects" (Nuyts, 2007: 557).

Accordingly, Nuyts points at the "strong mutual influence between the ideas and perspectives from Cognitive Linguistics and (…) Functional Linguistics" (2007: 546), provoking the emergence of an approach that combines features of both models.

Naturally, this group of scholars are named 'functional-cognitive linguists' in Nuyts' (2007) work. Some of the most representative figures within such functional-cognitive continuum, as cited by Nuyts (2007: 546), are Kemmer (1993) and Geeraerts (1989, 1993, 1997, 1999), as well as scholars combining insights from the Hallidayan Systemic Functional Grammar and Cognitive Linguistics,[7] such as Davidse (1997, 1998), Heyvaert (2003) and Lemmens (1997, 1998), as cited by Butler and Gonzálvez-García (2014: 499). These scholars have in common the type of empirical research method used for their studies: *systematic corpus-based analysis*. Interestingly enough, corpus linguistics is not frequently found in traditional functional and cognitive models, but it is thought to be the default method used in the work of authors belonging to the functional-cognitive continuum (Nuyts, 2007: 552), as the present dissertation also attempts.

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[7] The Hallidayan Systemic Functional Grammar assigns a key role to interpersonal phenomena, namely, illocution and modality (see Van Valin and LaPolla, 1997: 41-42).

1.3. A usage-based methodology

With the aim of systematically gathering a large and quantifiable range of data on the middle construction, this project follows a usage-based methodology founded on a corpus study of contextualised examples. According to Goldberg (2006: 45), the adoption of a usage-based approach to language "is required to account for the synchronic state of grammar" since "facts about the actual use of linguistic expressions such as frequencies and individual patterns that are fully compositional are recorded alongside more traditional linguistic generalizations" (see also Bybee (1985). In this respect, as Langacker explains,

> [s]ubstantial importance is given to the actual use of the linguistic system and a speaker's knowledge of this use; the grammar is held responsible for a speaker's knowledge of the full range of linguistic conventions, regardless of whether these conventions can be assumed under more general statements. [Thus, the usage-based approach is] a non-reductive approach to linguistic structure that employs fully articulated schematic networks and emphasizes the importance of low-level schemas. (Langacker, 1987: 494)

In addition, as the LCM proposes, a usage-based methodology relying on qualitative analysis of data retrieved from corpora is indispensable to measure the acceptability judgments "not in terms of an ideal speaker-hearer but of real speakers' linguistic performance" (Ruiz de Mendoza and Galera Masegosa, 2014: 37).

The corpus analysed in this dissertation is thus intended to explore the lexical-semantic and discourse-pragmatic factors that acceptability criteria for a given middle instance would act upon, including contextual factors that influence variability. In line with the ideas of scholars like Boas, in order to build an adequate theory of middles, "we should not restrict ourselves to a limited set of data, but should instead aim at collecting large amounts of empirical data in order to cover the subject of study in its entirety" (Boas, 2003: 11).

The data collection process of the present dissertation is conducted through a corpus compiled and retrieved by using the Concordance section in the English Web 2013 (enTenTen13) corpus within the Sketch Engine tool, the broadest corpus made up of texts collected from the Internet (with more than 19 billion words). In order to obtain a

quantifiable basis for the analysis of the middle structure, this electronic corpus is taken as the stem for determining what type of middles occur with a given verb and also in what quantities certain colloconstructional patterns occur.[8]

Stefanowitsch and Gries explain that a colloconstructional analysis (or 'collostructional analysis', as the authors prefer to refer to this notion) is "a type of collocational analysis which is sensitive not only to various levels of linguistic structure, but to the specific constructions found at these levels" (2003: 214). According to the authors, colloconstructional analysis "starts with a particular construction and investigates which lexemes are strongly attracted or repelled by a particular slot in the construction (*i.e.*, occur more frequently or less frequently than expected)" (2003: 214).

A more detailed discussion of different colloconstructional patterns examined here will be given in Chapter 4. The sample of instances analysed in this project conforms a total of 14099 examples, last accessed 27/06/2021. In this respect, it is – to the author's knowledge – the largest data pool of English middles collected aiming at the examination of this phenomenon to date.

As detailed in Chapter 4, the total sample is further sub-divided into different sub-corpora in order to carry out a quantitative analysis of the features of each group and quantifying the occurrence of middles with regards to the family-resemblance analysis provided. In this way, the characteristics of each sub-corpus examined here are described below:

(i)   A sub-corpus of 3633 prototypical action-oriented middles, as well as a sample of 105 instances involving their metonymically-motivated extensions belonging to the Locative, Means, and Circumstance-of-Instrument types.

(ii)   A sub-corpus of 6801 prototypical ergative-like middles, as well as a sample of metonymically-motivated extensions belonging to either the Agent-Instrument type (286 instances) or the Experiencer-Subject class (1789 examples).

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[8] Although the term 'colloconstructional' (*cf.* Herbst, 2020) is preferred in this dissertation, this notion is also referred to as 'collostructional' (*cf.* Gries, 2011: 239; Gries and Stefanowitsch, 2004; Stefanowitsch and Gries, 2003).

(iii)   A sub-corpus of 1475 middle structures belonging to the marginal types of Destiny- and Result-oriented middles (*cf.* Heyvaert, 2001, 2003; Davidse and Heyvaert, 2007).

The family-resemblance analysis presented here primarily accounts for the types of middle structures mentioned above, as exemplified by the data examined. However, this does not inexorably mean that this analysis is able to predict the distribution of *every* possible middle structure, as the prototype effects of the middle construction cannot be exclusively limited to the ones discussed here. Nevertheless, the approach provided in this study aims at providing the syntactic, semantic, pragmatic, and cognitive schemas underlying the total sample of instances analysed.

Along the lines of the Goldbergian constructional approach (1995, 2006), in this project the middle construction is understood as a colloconstructional unit made up of these elements: Noun + Verb + Adverb. Therefore, a middle instance would consist in a Verb + Adverb collocation (due to the verbal and adverbial restrictions imposed by the construction itself)[9] in combination with a ±Animate Subject entity (depending on the prototype effects of the construction). That is to say, the relation between the verb and the adverb of the middle construction is assumed as a lexical combination (*i.e.*, a collocation) not only due to the constraints imposed on the verb,[10] but most particularly because of the restricted list of possible adverbs found in this grammatical structure. In fact, as Bosque puts it, "restricted adverbs are collocates" (2016: 9).

In this respect, Heyvaert (2001, 2003) and Davidse and Heyvaert (2007) elaborate a semantic typology of middles essentially based on the value of the adjunct. For example, middle instances incorporating the adverb 'easily' will acquire a 'facility-oriented' reading.[11] In addition, the choice of verbal predicates used as the basis of collocation in this dissertation departs from Levin's (1993) classification of middable verbs, and then

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[9] According to Gries, the term collocation is defined as the co-occurrence of two (or more) elements, that is, "a form or a lemma of a lexical item" and "one or more additional linguistic elements of various kinds", as long as such combination of elements "functions as one semantic unit in a clause or sentence" and its "frequency of co-occurrence is larger than expected on the basis of chance" (2008: 6).

[10] Chapter 2.3.3 examines the aspectual properties of verbs which license their occurrence in middle structures.

[11] For a detailed analysis of the set of adverbs appearing in the middle construction, including the case of adjunctless middles, see sections 2.3.3 and 2.3.4.

other predicates (otherwise traditionally catalogued as non-middable) are examined by virtue of the contextual information surrounding the construction.

Therefore, the method of data extraction to determine the distribution of middles within the family-resemblance relation established here is as follows. The total sample of instances have been obtained after a detailed and exhaustive manual search by means of the application of these restrictions in the searching tool: 3rd person Present Simple uses of the 254 verbs chosen in combination with a semantic classification of adjuncts, as detailed in Chapter 4. The set of verbs explored in this dissertation and their distribution with regards to the family-resemblance analysis offered here are detailed in Chapter 4 too. Since the query system of the Concordance section within Sketch Engine neither allows for semantic specifications that filter out Animate/Inanimate entities as Subject entities nor does it filter out middle usages of the instances found, the extraction of the middle structures was carried out manually. In order to avoid errors in determining the nature and number of colloconstructional elements occurring with a given verb, each manual counting was repeated twice. As detailed in Chapter 4, this method of data extraction enables the analysis of frequency of occurrence and also the creation of different tables and figures for the verb classes analysed, thus resulting into their distribution within the family-resemblance relation offered here. In terms of the colloconstructional schemas found in the data analysed, the members of the family-resemblance network are distinguished by virtue of their degree of prototypicality as follows:

(i)   prototypical action-oriented middles are represented by the colloconstructional schema [NOUN (INANIMATE ENTITY = ENABLER) + VERB + ADVERB];

(ii)   prototypical ergative-like middles are coded by the colloconstructional schema [NOUN (INANIMATE ENTITY = PATIENT) + VERB + ADVERB];

(iii) the metonymically-motivated extensions from the action-oriented prototype exemplify the following colloconstructional schemas: [NOUN (INANIMATE ENTITY = LOCATIVE / MEANS / CIRCUMSTANCE-OF-INSTRUMENT) + VERB + ADVERB];

(iv)   and the metonymically-motivated extensions from the ergative-like prototype exhibit diverse colloconstructional schemas. On the one hand, Agent-Instrument Subject middles are characterised by this schema: [NOUN (INANIMATE ENTITY = INSTRUMENT) + VERB + ADVERB]. On the other hand,

Experiencer-Subject middles underly the following colloconstructional schema: [NOUN (ANIMATE ENTITY = PATIENT/EXPERIENCER) + VERB + ADVERB].

As further detailed in section 3.1, such family-resemblance relation is also accounted for in terms of a typology of patterns in semantic-weight shift within the process of Compositional Cospecification across the middle prototype category, basically differentiating action-oriented from ergative-like structures, including certain peculiarities in their metonymically-motivated extensions. This analysis stems from the theory of *Qualia* Structure (as proposed by Pustejovsky (1991, 1995) and later applied by Yoshimura (1998) and Yoshimura and Taylor (2004)) for the analysis of the middle Subject within the cognitive framework of Langacker's (1987, 2008) and Taylor's (1995) encyclopedic semantics approach.

1.4. Outline of the project

The remainder of the dissertation is organised as follows. Chapter 2 includes a brief overview of previous approaches to the middle construction. Then, the notion of middlehood is linked to the theory of prototypes, understanding the middle construction as a prototype category located within the Unergative – Middle – Ergative spectrum, and enabling the creation of a family of distinct but related constructions. Additionally, issues like the conduciveness of the Subject entity, the aspectuality of the verb, the role of the implicit Agent, and the nature of the adjunct are explored. Chapter 3 is devoted to the rapprochement of both cognitive and functional postulates, providing a conciliatory approach. More specifically, this dissertation is also focused on the functional idea of the symmetry in the underlying structure of the middle Subject and its verbal predicate in combination with the cognitive encyclopedic semantics view so as to explore the different *qualia* patterns occurring within the process of Compositional Cospecification (depending on the nature of the Subject entity, the verb, and the adjunct found in the construction). By applying a usage-based methodology and including contextualised instances of real uses of middles in English, Chapter 4 puts forward a quantitative analysis of the compiled middle instances retrieved from corpus data. Finally, Chapter 5 highlights the main findings of this study and concludes the dissertation.

2. Defining and delimiting the middle construction

This chapter addresses three main issues. Section 2.1 offers a brief overview of the contributions of some of the leading scholars who have paid due attention to the characterization of the middle construction in English. In section 2.2, a definition and delimitation of the object of study in pursue of the identification of the notion of middlehood is provided. To do so, the middle construction is depicted as a prototype category, rather than as a discrete category of its own, as it is located within a cognitive network of syntactically, semantically, pragmatically, and conceptually related intransitive constructions (namely the unergative and the ergative ones). Finally, in section 2.3 the traditionally accepted features of prototypical middles and the relatively marginal aspects related to non-prototypical instances are examined. This aims at the exploration of the lexical-semantic and discourse-pragmatic features influencing the adscription of a given nominal, verb, or adjunct to the middle construction in English. Of particular relevance is the family-resemblance analysis provided in Section 2.3.2, where central and peripheral, metonymically-motivated extensions of middles are examined.

2.1. A brief overview of previous approaches to the middle construction

Even though a functional-cognitive approach is favoured in this dissertation against the formal postulates of the Chomskyan Generative Grammar tradition, it is indisputable that the former (especially the functionalist space) is influenced, to some extent, by the latter. Therefore, some of the main scholars who first attempted a characterization of the English middle construction belong to the formalist consortium and thus they well deserve to find a place in this brief overview of works on the exploration of the middle construction. The following paragraphs outline the most relevant features advocated by authors examining the middle construction from either a syntactic, projectionist, semantic, pragmatic, or cognitive perspective, ranging from formalists to functional-cognitivists.

Well-recognized syntactic analyses on the phenomenon of middle formation embedded within the formalist framework include the contributions of scholars like Keyser and Roeper (1984), Hale and Keyser (1986), Roberts (1987), and Hoekstra and Roberts (1993), among others. The common feature that these contributions share is the requirement of an NP-movement mechanism (*i.e.*, Move α)[12] as the fundamental aspect of middle formation. Therefore, according to the authors of the syntactic approach, the middle structure is treated as transitive in its basic form and syntactically derived into an intransitive variant. Despite this common aspect, the authors' contributions differ in one way or another regarding the processes described to get to their conclusions and the features they attribute to the middle construction in English. For example, Keyser and Roeper maintain that the middle expression in Romance languages is identified by means of a morphological marker, and accordingly, the middle in English possesses "an abstract *si* clitic that absorbs case and the agent theme, but it is inexpressible" (1984: 406; see also Roberts (1987: 190) and his notion of the 'phonologically null *si*'). In addition, Roberts (1987: 197) explains that middles pattern with statives, *i.e.*, the middle construction needs to be understood as a closely related phenomenon to the stative formation, in that the

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[12] The notion of Move α was introduced by Chomsky's (1980, 1981) transformational grammar approach in an attempt to generalise grammatical movements, like the NP-movement occurring in the middle structure, as Keyser and Roeper (1984) propose. Move α basically advocates the movement of some category α anytime anywhere.

Agent θ-role is unassigned and the construction possesses a non-eventive nature (1987: 185).

Also belonging to the formalist tradition of the Government and Binding Theory, we find the contributions of scholars of the lexicalist or projectionist approach. Well-recognized lexicist analyses on middle formation include Fagan (1992, 1988), Ackema and Schoorlemmer (1994), and Hale and Keyser (2002), among others. The contributions of these authors find some common grounds for the characterization of the middle construction, namely, a systematic refusal of the syntacticist approaches that claim that the middle formation process undergoes a syntactic NP-movement by which the thematic role of the Agent is eliminated. On the contrary, scholars belonging to the projectionist group advocate the idea of a lexically derived operation, considering the middle structure as intransitive from a syntactic point of view. Despite this shared perspective, the contributions of these scholars differ in their analysis of the entity construed as Subject, understanding it either as an internal or as an external argument, the former coinciding with an ergative analysis, and the latter being an unergative one. For instance, Ackema and Schoorlemmer (1994) propose their own model of argument projection in the process of middle formation. With this model, the authors argue that "the grammatical subject of a middle is its actual external argument" (1994: 59). On the other hand, Hale and Keyser (2002) propose the projection of the internal argument as the element able to become externalised in order to function as the 'sentential Subject', that is, the middle Subject entity.

Contrary to the postulates of both the syntactic and the projectionist perspectives on middle formation, functional and/or functional-cognitivist authors like Heyvaert (2003: 128) propose that the middle structure possesses a versatile nature that enables its formation from transitive, intransitive and even ergative uses of verbs.[13] In fact, many typologists like Verhaar (1990) consider the notion of 'transitivity' as a *gradable* property of verbs (see also Radden and Dirven, 2007; Taylor, 1995). As Hundt clarifies, "[t]his problem does not arise with cognitive and (functional)-cognitive typological conceptualisations of transitivity where it is taken to be a *gradable* rather than absolute property of constructions" (2007: 55; emphasis added). This idea, which is perfectly compatible with the one maintained in this dissertation, seems to downplay the issue of

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[13] For a detailed analysis of this idea, see section 2.3.3.

whether the middle structure is syntactically or lexically derived. In fact, some authors that in essence commune with the ideas of the projectionist perspective raises the same possibility too. For instance, on the subject involving the derivational process, Levin writes that her choice "reflects a desire to remain neutral about the direction of the relation, since although in some instances the direction is clear, in others it is not" (1993: 3). This intention to take no position with respect to the issue of derivational process is also reflected in Schäfer (2009), another advocator of the formalist postulate. Schäfer (2009) admits that a 'common base approach' would be reasonably plausible. From this point of view, the fact that both the transitive and the intransitive-oriented approaches "derive one version of the alternation from another" is crucially rejected, given that "each theory leaves half of the paradigm unexplained". Hence, this condition is solved by assuming that "in principle, both processes exist across languages or even within individual languages" (Schäfer, 2009: 668).

Besides, even though formalist postulates on middle formation are chiefly centred on the analysis of formal structure (thus paying scarce attention to semantics, and obviously, totally rejecting the analysis of discourse-pragmatic information), in fact, some authors who fairly commute with the projectionist perspective include, to a certain extent, some ideas dealing with the semantics of the middle verb. For example, this is the case of Levin (1993), Levin and Rappaport (2005), and Rappaport and Levin (1998). These authors reflect the projectionist perspective in general terms, but at the same time, they highlight the relevance of the semantics of the construction to some degree. As Levin and Rappaport write,

> [t]he pervasiveness of multiple argument realization has brought into question *the main tenet of the projectionist approach: that a verb has a structured lexical entry which alone determines the projection of its arguments*. Since, in many instances, each distinct option for argument realization is accompanied by a distinct meaning, *theories have been developed in which it is the syntactic expression of the arguments which determines major facets of meaning, rather than differences in meaning which determine different argument realizations*. In these theories, which we call CONSTRUCTIONAL (…), the lexical entry of the verb registers only its core meaning (…) and this core meaning combines with the event-based meanings which are represented by syntactic constructions themselves or are associated with particular syntactic positions or substructures. This eliminates wholesome polysemy and multiple lexical entries for verbs which appear in multiple syntactic contexts. (…). *In constructional theories, the verb is integrated into the construction,*

rather than determining the construction, and the construction itself licenses some of the complement structure. (Levin and Rappaport, 2005: 190, emphasis added)

Levin's (1993) partial compatibility with Goldberg's (1995, 2006) Construction Grammar is based on the idea of the semantics of the construction as being definitely relevant for the classification of a verb as a member of a given alternation. Besides, Rappaport and Levin (1998: 106) also present a conciliatory viewpoint between the projectionist and the constructionist perspectives by arguing that both approaches mention the basic distinction between 'structural' and 'idiosyncratic' components of verb meaning.[14] The main difference between them concerns the definition of the structural aspect of meaning (*i.e.*, the lexical semantic template) as either residing in the lexical entry of individual words or being related to the syntactic structure, as respectively maintained by projectionists and constructionists. In addition, Fagan (1992) also relies on semantic grounds despite her lexicalist background when defining the implied Agent as a generic or arbitrary participant in the construction.[15] Nevertheless, as Hundt writes,

> [p]rototypicality effects and pragmatic factors are the reason why Levin's (1993) attempt to establish semantic verb classes on the basis of the syntactic alternations that they allow is doomed to failure. Levin (1993) does not take into account the possibility of *dynamic interaction between lexical meaning on the one hand and constructional meaning on the other*. (2007: 60; emphasis added)

In this respect, Lemmens also points at the weakness of Levin's (1993) approach by explaining that "the major shortcoming of her work is that she sees the choice of constructions in which a verb may occur as wholly determined by the verb's semantics and, as a result, fails to recognize that the constructions themselves are meaningful" (1998: 4).

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[14] Rappaport and Levin clarify that "[s]pecific combinations of *primitive predicates* represent the *structural* aspect of verb meaning, while the *constants* represent the *idiosyncratic* element of meaning" (1998: 107, emphasis added). The authors go on to argue that "[t]he various combinations of primitive predicates constitute the basic stock of lexical semantic templates of language"; therefore, the meaning of a verb involves "an association of a constant with a particular lexical semantic template" (1998: 107). This issue will be addressed in depth in Section 2.3.3.

[15] Fagan (1992: 162) elaborates the lexical rule 'Assign *arb* to the external θ-role' to account for the lexically saturation process occurring in middle formation by which the implicit Agent is identified as a semantically arbitrary entity, contributing to the generic reading of the construction. This idea is addressed in detail in sections 2.3.1.1 and 2.3.1.2.

In the remaining of this section, the contributions of scholars who examine the semantic and/or discourse-pragmatic aspects involving the middle construction in English are reviewed. Some of the most relevant contributions examining the middle construction from a purely semantic perspective would involve the works of scholars like Van Oosten (1986), Fellbaum (1986), O'Grady (1980), and Dixon (1982). The common feature that these contributions share is the premise that middle eligibility conditions are dependent on the inherent properties of the middle Subject as being *responsible for* the carrying out of the action denoted by the predicate.[16] Despite this common aspect, the authors' contributions differ in their analysis on middle formation. On the one hand, some authors still follow the patterning elaborated by the syntactic perspective on the premise that the middle formation process undergoes a syntactic NP-movement. On the contrary, other scholars of the semantic approach deny the occurrence of any syntactic or lexical rules and instead advocate an analysis which is based on the semantic relation that exists between the lexical meaning of the predicate and the inherent properties of the Subject entity. For example, O'Grady (1980: 60) uses the semantic term 'actualizer' to refer to the *responsibility* of the non-agentive middle Subject, understood as a Patient participant which 'actualises' the action denoted due to its inherent properties. In contrast, Dixon (1982: 152) uses the term 'topic-manner construction' to refer to the middle construction, since the author understands this grammatical structure as comprising both a logical Object which becomes topicalised and thus promoted to Subject position, and also the requirement for the incorporation of a manner-like type of adverbial modification (1982: 153).

For their part, scholars like Givón (1993, 1995) and Hendrikse (1989) have attempted an examination of the middle construction from a (functional and/or cognitive) pragmatic perspective. The common features that these contributions share involve their rejection of the rigid Chomskyan formalist analyses (either syntactic or lexicist), as well as their compatibility with the semantic approach. The authors with a pragmatic perspective also rely on the necessity of contextual or discourse information for successful communication and interpretation, bestowing language and communication in

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[16] By contrast, this notion of 'responsibility' leads to the 'ergative fallacy' and scholars like Davidse and Heyvaert (2007) propose a refinement of this notion in terms of the process of subjectification of the middle Subject by which it is the speaker who assesses the conduciveness (rather than the responsibility) of the contextually invoked properties of the middle Subject to the action. This is one of the central tenets of this dissertation and it is fully addressed in sections 2.3.1.1 and 2.3.1.2.

general with a dynamic nature which depends on the speaker and hearer's situation at the moment of the utterance. In other words, they explore how humans actually communicate. Therefore, the contributions of scholars like Givón (1993, 1995) and Hendrikse (1989) nail their colours to the mast by arguing in favour of a functionalist and/or cognitive (rather than formalist) framework. Despite these common aspects, the authors' contributions differ in their considerations to some extent. On the one hand, Hendrikse (1989) opts for a pragmatic perspective which deals with the function of the middle construction from the point of view of the speaker. According to this, the speaker chooses, among the different possibilities available, a topicalised-patientive structure in which the semantics of the verb (together with the value of the adverbial modification) enhances the inherent properties of the Subject entity in the utterance. In other words, Hendrikse (1989) understands the middle structure as one among a range of possible syntactic structures which is chosen by the speaker as the most appropriate pragmatic option in a given situation, since the speaker's intention is to topicalise/foreground the information focus involving the Patient argument and its qualities. On the other hand, scholars like Givón (1993, 1995) elaborate a set of semantic as well as discourse-pragmatic conditions upon which the middle construction would be restricted, and which rely on two main factors: the topicalised non-agentive Patient and the de-topicalised or demoted Agent. In addition, Givón (1993: 202) states that the middle construction topicalises the Patient argument as a result of this entity being "topical across a multi-clause span", *i.e.*, because this argument is "being talked about in the discourse", thus becoming a cognitively recurrent, significant or important topic for the speakers. Hence, the middle construction is characterised by this type of perspectivising phenomena by which the Patient is profiled and the Agent is demoted. As Davidse and Heyvaert write in this respect,

> [i]n functional and cognitive frameworks (Halliday, 1985: Ch. 4; Dik, 1997: Ch. 10; Langacker, 1991: Ch. 7) it is stressed that subject and object assignment do not semantically contribute to the representation of states of affairs but to the *perspectivising of the proposition*. (2007: 53; emphasis added)

In addition, authors like Langacker (1987, 2008), Kemmer (1993), Taylor (1995), Yoshimura (1998), Sakamoto (2001), Yoshimura and Taylor (2004), and Marín Arrese (2011) take another in step in characterizing the middle construction. These scholars adopt a cognitive perspective and consider that the middle construction does not constitute a discrete category of its own, but rather, a *prototype category* with fuzzy

boundaries with other intransitive constructions due to their syntactic and semantic relatedness (*cf*. see Section 2.2 for a detailed explanation on this issue).

By rejecting the formalist postulate that semantics and pragmatics are separated or autonomous, authors like Langacker (1987, 2008), Taylor (1995), and Kemmer (1993: 7) proclaim that linguistic and extra-linguistic knowledge often conform a continuum or gradation (*cf*. Langacker, 1987: 147) of linguistic categories. Hence, it is not possible to draw a clear-cut dividing line between what speakers know by virtue of their purely linguistic knowledge and what they know by virtue of the encyclopedic knowledge based on their acquaintance with the world (*cf*. Taylor, 1995: 81, 89). In this regard, scholars like Langacker (2008: 38) and Taylor (1995: 81) examine two basic views of linguistic semantics: (i) the dictionary view; and (ii) the encyclopedic semantics approach. The former is seen as providing parsimonious, limited 'purely linguistic' meanings, normally omitting relevant information on their cognitive context, whereas the latter is widely accepted in Cognitive Linguistics. This is because distinctions between semantic and pragmatic *specifications* or *domains* of the linguistic and extralinguistic meaning of an entity are understood as a matter of degrees of centrality. Therefore, when certain *specifications* or *domains* are central for a given lexical meaning, they are more likely to be cognitively accessed or activated whenever the linguistic expression in question is used. On the contrary, other specifications/domains are peripheral and thus they are cognitively activated or accessed less regularly or just in certain contexts, depending on the particular construal of the situation. This issue is fully developed in Chapter 3. As mentioned above, in the case of the middle construction, the entity construed as Subject is conceptualised as being topical (*i.e.*, foregrounded) given that subjective speaker-assessment evaluates the inherent properties of the middle Subject as being conducive to the carrying out of the action denoted. This idea is fully developed in sections 2.3.1.1 and 2.3.1.2.

Authors like Yoshimura (1998) and Yoshimura and Taylor (2004) rely on this type of analysis of encyclopedic knowledge about the entity construed as middle Subject, and they examine the notion of *specifications* or *domains* in terms of *qualia structure*. The *qualia* structure of an entity allows us to structure our basic knowledge about the entity in question to conceptualise it by means of the cognitively activated inherent properties of the entity on each occasion. Therefore, the cognitive task of activation of a particular *quale* or another would be context-dependent, as detailed in Section 3.1.

On the whole, scholars belonging to the functional-cognitive spectrum agree on a characterization of the middle construction as a type of grammatical structure which profiles (to use Langacker's term)[17] the following semantic and pragmatic information: (i) a non-agentive Subject entity which is assessed by the speaker as being conducive to the profiled action by virtue of the contextually invoked properties it has; and (ii) an implicit Agent which is never profiled, hence not represented in the constructional form because it is considered irrelevant for the discourse purpose. These issues are addressed in detail in Section 2.3.

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[17] The notion 'profile' stands in opposition to that of 'base' in Langacker (2007). The terms 'profile' and 'base' specify the 'figure-ground' relations in the semantic analysis of language units, *i.e.*, words. For example, the term 'Tuesday' *profiles* a particular day regarding the conceptual *base* 'week'. Hence, the 'base' is understood as the immediate 'ground' for conceptual elements, which are 'profiled' by a given language unit.

2.2. The middle as a prototype category: The Unergative – Middle – Ergative continuum

The study of the middle construction has a long history within the framework of Government and Binding Theory (*cf.* Fagan, 1988, 1992; Keyser and Roeper, 1984; Ackema and Schoorlemmer, 1994; among others). Many scholars belonging to this formalist framework have centred on either syntactic or lexical derivational patterns to explain the process of middle formation, as well as its syntactic and semantic relatedness with other structures like the unergative and the ergative.[18] On the other hand, functional-cognitivist approaches to the same issue advocate the rejection of formalist procedures and instead argue in favour of a discourse-pragmatic and semantically-based analysis (*cf.* Sakamoto, 2001; Yoshimura, 1998; Yoshimura and Taylor, 2004; Taylor, 1995; Langacker, 1987, 1991a, 1991b, 2008; Kemmer, 1993; Heyvaert, 2001, 2003; Davidse and Heyvaert, 2007; Givón, 1979, 1993, 1995, 2005; and Marín Arrese, 2011, among others). As declared in Section 1.2, this functional-cognitive framework is precisely the one on which this dissertation is based.

In the literature on formalist syntactic and projectionist studies there have been two main approaches to the phenomenon of middle and ergative formation, represented as follows: [19] (i) the transitive-oriented analysis, and (ii) the intransitive-oriented analysis. The former is defined as an approach that proposes the idea that middles and ergatives

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[18] According to the Unaccusative Hypothesis, originally formulated by Perlmutter (1978) within the context of Relational Grammar and then adopted by Burzio (1986) within the framework of the Chomskyan (Chomsky, 1981) Government and Binding model, intransitive verbs are not a homogenous set and thus they can be divided into two classes, depending on their syntactic configuration, although both groups share certain semantic regularities. The two groups of intransitive verbs would be classified into: (i) unergatives, and (ii) unaccusatives, and they are characterised as follows:

(i)   Unergatives (also known as *pure intransitives* in Burzio (1986)) are those verbs that take a D-structure Subject but no Object. In terms of argument structure, this would imply that unergatives possess an external argument, but they lack any direct internal argument. In other words, unergatives are considered intransitive structures which incorporate subject referents behaving like transitive *subjects*.

(ii)   Unaccusatives (also known as *ergatives* in Burzio (1986)) are those verbs that take a D-structure Object but no Subject. Regarding argument structure, unaccusative verbs incorporate an internal argument but they lack a syntactically-projected external argument, *i.e.*, unaccusatives are defined as intransitive constructions whose subjects behave like transitive *objects*.

[19] The ergative construction is also known as the 'unaccusative construction' (Sakamoto, 2001), the intransitive variant of the inchoative alternation (Levin, 1993), or the 'anticausative alternation' (Alexiadou *et al.*, 2006).

are derived uniformly from their corresponding transitives (*i.e.*, the transitive form is considered the base for the derived intransitive middle and ergative structures). On the other hand, the intransitive-oriented analysis on middle and ergative formation maintains that middles and ergatives are derived unidirectionally from their corresponding intransitives (*i.e.*, the intransitive form would be the base for the derived transitive middle and ergative structures).

Scholars like Lyons (1968), Jackendoff (1972, 1990) and Noguchi (1989) advocate the intransitive-oriented approach to middle and ergative formation. On the other hand, the transitive-oriented approach is claimed by authors like Keyser and Roeper (1984), Hale and Keyser (1986), and Fagan (1988, 1992), among others.

Nevertheless, there is a third approach to the issue of determining the base form of middles and ergatives which is compatible with the analysis carried out in this dissertation. This approach, proposed by Kitazume (1996), follows a cognitive perspective and is based on historical evidence in the sense that it explores "original usages and derived usages of not only middles and ergatives but also a wide range of verbs including pure transitives and pure intransitives" (Kitazume, 1996: 162) by taking into account the moment in which the verb entered the English language, as attested by the Oxford English Dictionary.[20] In this way, Kitazume proposes a bidirectional approach on the derivational process by which "some transitives are basic and give rise to intransitives, while in other cases it is the intransitive which is basic and which yields derived transitives" (1996: 161). Hence, the basic structure will be a transitive or an intransitive form depending on the degree of *cognitive saliency* of the verb in question. As the author writes, "the more cognitively salient form will always be first to appear in the language" (1996: 162), giving rise to the derived ergative or middle structure. In fact, as Kitazume clarifies, "if a verb is recognized more as a transitive, then transitive uses of the form should predate intransitive cases in the historical record; the converse should also be true" (1996: 162).

The author concludes that "middles are recognized as transitive in our cognition" and he suggests "a bidirectional view of the derivation process of ergatives: some ergatives result from an intransitive predicate, while others stem from the converse

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[20] Kemmer also argues that grammatical prototypes are revealed *diachronically* and used as "source uses for the later spread of the associated morphosyntax into other semantic areas" (1993: 9).

process" (1996: 163). Henceforth, the author argues against the unidirectional derivation process in the case of ergatives.

Kitazume (1996: 179) presents a variety of basic forms which ranges from pure transitives (like *buy*) to pure intransitives (like *go*), incorporating middles (as *kill*) and ergatives divided into three groups (ergatives with a transitive base (like *fasten*), typical ergatives which have an alternating transitive-intransitive base (like *open*), and ergatives with an intransitive base (like *fly*)), as shown in Table 1 below:

		ERGATIVES			
PURE TRANS.	**MIDDLES**	**Trans. base**	**Typical Trans.-Intrans. base**	**Intrans. base**	**PURE INTRANS.**
buy	*kill*	*fasten*	*open*	*fly*	*go*

Table 1. Kitazume's (1996) distribution of verbs according to their base form

Summarising, Kitazume's (1996) approach argues that both the transitive and the intransitive-oriented unidirectional approaches found in the literature fail to account satisfactorily for some cases of characterization in terms of middlehood and ergativity.

Interestingly, as Davidse claims, contrary to the formalist analyses, terms like 'alternative' (or *alternation*) can be used in functional and cognitive frameworks "without implying any notions of derivational directionality" (2011: 15).[21] This is precisely the point of view taken in this dissertation. Therefore, the formalist explanations that imply the existence of both deep and surface structure (*cf.* Chomsky, 1981, 1982, 1986a, 1995), the latter emerging by means of a syntactic/lexical derivational process, are discarded here. Instead, a functional-cognitive approach is favoured in order to examine the criteria

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[21] See also Barcelona (2011) for a cognitive reinterpretation of the notion of 'morphosyntactic alternation' that is congruent with the Cognitive Linguistics principle of 'non-synonymy', *i.e.,* the rejection of a 'deep structure' from which synonymous alternative constructions would emerge, with no change in meaning. For example, the so-called 'dative alternation' between, *e.g.*, *My colleague handed me a book* and *My colleague handed a book to me* are shown not to be synonymous, but rather to be paired to different pragmatic meanings, even if they may be claimed to be truth-functionally equivalent.

for the acceptance of a particular middle structure on the grounds of the discourse-pragmatic and semantic factors involving the utterance.

Henceforth, the approach followed in this dissertation regarding the issue on middle formation differs from those provided by formalist analyses. On the other hand, being also cognitively-oriented, it could be reasonably complemented by Kitazume's (1996) perspective, as the approach of this dissertation is based on the idea of the 'Unergative – Middle – Ergative continuum' (*cf*. Sakamoto, 2001).[22]

Along the lines of cognitivists like Langacker (1987, 2008), Taylor (1995) and Geeraerts (1985), scholars like Yoshimura (1998), Yoshimura and Taylor (2004), Sakamoto (2001), Kemmer (1993: 238), and Marín Arrese (2003, 2011), among others, explain that the middle construction cannot be considered as a well-defined or clear-cut *discrete category*.[23] Rather, these scholars consider the middle construction as a *prototype category* in which some category members are better/more central exemplars and others are more marginal/peripheral due to the *prototype effects* exhibited.[24] That is, "depending on the number of basic or prototypical features instantiated on each occasion and the different deviating-behavioural patterns in each case, a certain middle instance will be considered a more central or a more peripheral member" (Palma Gutiérrez, 2021b: 164).[25] This implies that "membership in a prototype category is a matter of gradience" (Taylor, 1995: 54). Therefore, "prototype categories permit membership to entities which share only few attributes with the more central members. In this respect, prototype categories achieve the flexibility required by an ever-changing environment" (Taylor, 1995: 54).

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[22] In Sakamoto's (2001) work, the continuum includes the term 'unaccusative' rather than 'ergative'; however, in this dissertation the second term is preferred.

[23] Kemmer (1993) explores the *middle voice across languages*, a phenomenon which includes the analysis of the family of middle and reflexive uses of grammar cross-linguistically. Therefore, the aim of her study is broader than the issue at hand: the examination of the *middle construction in English*. However, Kemmer's study claims that the middle categorial status involves "a coherent but relatively diffuse category" which, in spite of its lack of precise boundaries, allows for a delimitation of the area of middle semantics regarding two properties: (i) the Initiator is understood as an affected entity, therefore becoming the only projected participant, *i.e.,* the Endpoint; and (ii) there exists a relatively low degree of elaboration of the event in relation to the higher degree found in transitive events, where the two participants are completely distinct (1993: 238).

[24] According to Barcelona, a category (in the case at hand, the 'middle prototype category') subsumes "good and bad examples of the category, *i.e.,* [it exhibits] *prototype effects*" (2011: 19; emphasis added).

[25] See also Hundt, for whom the middle construction is "best treated in a cognitive framework that (…) approaches grammatical patterns as prototypically structured phenomena" (2007: 22).

In addition, as Brdar and Brdar Szabó propose (1993: 3-4), "prototypical categories cannot be defined by means of a single set of criterial (necessary and sufficient) attributes"; instead, they are characterised by having "blurred or fuzzy edges" and their ability to "exhibit a family-resemblance structure" and "exhibit degrees of category membership, *i.e.*, not every member is in the same measure representative of a category". As Marín Arrese explains,

> [t]he occurrence of blends and non-prototypical phenomena points to the existence of an intermediate domain between the two constructions, a fuzzy area where these instances occur. (…) The features of non-prototypical expressions may be explained as a result of blending, of conceptual mappings between the two input spaces and of selective projection from the two basic prototypes, creating emergent non-prototypical instances (Marín Arrese, 2011: 14)

The idea of the prototype effects was first developed in the 1970's by Rosch and her colleagues (Rosch, 1973, 1975, 1977, and 1978; Rosch and Mervin, 1975; Rosch *et al.*, 1976) in their psycholinguistic experiments, and was later applied to linguistic categories by Lakoff (1982, 1987) with his notion of 'based-on relation'. The linguistic theory of prototype effects entails that two constructions can be seen as instantiations of the same category (despite their syntactic and/or semantic distinctions) because certain properties of one of them can be seen as being motivated by the other. That is, the former is, in this case, an *extension* of the latter. However, the Lakoffian 'based-on relation' cannot be identified with any formal process of derivation or transformation. Due to the prototype effects of a construction (understood as a pairing of form and meaning), either formal (syntactic) or semantic extensions from the prototype can be found (*cf.* Taylor, 1995: 200). Therefore, the idea of the prototype effects of a construction allows the accommodation of a wide range of extensions from the prototypical member of the construction. Hence, the notion of 'extension from the prototype' is understood as a principle of category structure (*cf.* Taylor, 1995: 65). In this regard, Taylor (1995: 53) writes that "[p]rototype categories have a flexibility, unknown to Aristotelian categories, in being able to accommodate new, hitherto unfamiliar data". Hence, "new entities and new experiences can be readily associated, perhaps as peripheral members, to a prototype category, without necessarily causing any fundamental restructuring of the category system" (Taylor, 1995: 53). In this respect, as Geeraerts writes,

the fact that marginally deviant concepts can be incorporated into existing categories as peripheral instantiations of the latter, proves that these categories have a tendency to maintain themselves as holistic entities, thus maintaining the overall structure of the categorial system. (Geeraerts, 1985: 141)

In fact, following the ideas of Taylor (1995), Geeraerts (1985), and Langacker (1987, 2008), scholars like Sakamoto (2001), Yoshimura (1998), Yoshimura and Taylor (2004), and Marín Arrese (2003, 2011) claim that the middle construction cannot be specified as a *category* of its own due to the *fuzziness* in terms of semantic neighbouring intersections. According to Hudson, "the 'fuzziness' of a prototype-based concept lies (…) in the deviations which the world allows between it and its instances" (1984: 40). Therefore, in the case of the middle construction, in certain contexts, such semantic fuzziness provokes an ambiguous reading between some cases of peripheral members within the middle class and other intransitive constructions (namely, ergatives and unergatives),[26] as shown in Figure 1 below:

Unergative ◄——— Middle ———► Ergative
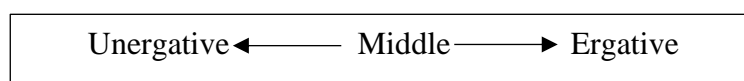
Figure 1. Unergative – Middle – Ergative continuum

The analysis of these scholars reflects the complexities of the middle construction, by examining this grammatical structure within a cognitive network or continuum of syntactically and semantically related constructions of reduced transitivity.[27] The authors revise the properties of the middle construction to elucidate to what extent the prototype members might achieve their status, and on what grounds peripheral exemplars could also be categorised as so. At the same time, Sakamoto provides some evidence so as to

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[26] In the literature, many scholars have attempted to demonstrate that the middle construction patterns with either the ergative or the unergative construction. Levin (1993: 25), Fagan (1992, 1988), and Hale and Keyser (2002), among others, propose the similarities between the middle and the ergative patterning; whereas Ackema and Schoorlemmer (1994: 61) defend the common patterning of middles and unergatives. However, in this dissertation, a continuum among these three grammatical structures is favoured.

[27] According to Goldberg, grammar consists in a repertoire of constructions, which "form a network and are linked by inheritance relations which motivate many of the properties of particular constructions" (1995: 67). That is to say, "[r]elationships between and among constructions are captured via a *default inheritance network*" (Goldberg, 2013: 21, emphasis in original). Similarly, Fried states that "grammar is seen as consisting of networks of constructions, related through shared properties" (2007: 727).

ascertain why "the middle is cognitively based on the unaccusative and the unergative" (2001: 94).

Syntactically, the three intransitive structures referred to in Figure 1 above instantiate the same argument structure realization, *i.e.*, the pattern [$N_1 - V$], assumed for intransitive constructions. Consider examples (1) – (3) below in this regard:

(1) *John works*. (Sakamoto, 2001: 87)

(2) *The crystal vase shattered*. (Levin, 1993: 5)

(3) [about a stroller] *Micralite Fastfold Stroller. The good-looking, sturdy DuoGlider proves that pushing two kids in a stroller doesn't have to be an ordeal. It rolls well (even around corners).* (enTenTen13 corpus, Concordance section, Sketch Engine)

The unergative structure illustrated in (1), the ergative in (2), and the middle in (3) display the same one-argument structure realization. Therefore, as Sakamoto points out, "[i]n the framework of cognitive grammar, the fact that the middle exhibits essentially the same syntactic form as the unergative and the unaccusative suggests that they are semantically related to each other" (2001: 88; see also Kemmer, 1993: 214). In fact, the author claims that, for this reason, "the middle is an extension from the unaccusative and the unergative" (2001: 93), rather than a discrete category of its own. Let us explore then to what extent the three types of constructions are fuzzily associated in terms of semantic relatedness.

Remarkably, the centre of the spectrum is occupied by the middle class, and membership to this class (either in the case of more prototypical instances as well as more peripheral ones) relies on the fact that some *inherent properties* of the non-agentive Subject are assessed by the speaker as being conducive to the action as specified by the adjunct (*cf*. Davidse and Heyvaert, 2007).[28] Therefore, the notion of middlehood resides in its predisposition toward the foregrounding and subjective speaker-assessment of some property of the entity construed as Subject. In this regard, Sakamoto holds that both prototypical as well as "extensions of the network involving the middle are motivated by the *Agent-like property* of the entity denoted by the subject" (2001: 107, emphasis

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[28] This idea is examined in depth in sections 2.3.1.1 and 2.3.1.2.

added).[29] In fact, as Yoshimura argues, acceptability is gained whenever the middle instantiates the high-level schema "[X (by virtue of some property P) ENABLES ACT]" (1998: 118).[30] Hence, peripheral members of the middle class maintain certain fuzzy boundaries with both sides of the spectrum, giving rise to action-oriented middles and ergative-like middles[31] (*cf.* Sakamoto, 2001), respectively illustrated in (4) and (5) below:

> (4) *This is the Honda CR-Z. <u>This car drives like a sports car</u> but has a Hybrid engine.*
>
> (5) [about a birdhouse] *A magnetic ring limits this house to small songbirds such as wrens, chickadees, finches, nuthatches and titmice. <u>The door opens easily for cleaning</u>.* (enTenTen13 corpus, Concordance section, Sketch Engine)

As explained in Palma Gutiérrez (2021b: 165), ergative-like middles are those made up from ergative verbs (like 'break', 'cut', 'open' and 'close'), since they specify how the change of state proceeds.[32] On the other hand, action-oriented middles incorporate unergative verbs (such as 'drive', 'handle', 'read', 'translate' and 'play'), because they specify the manner of action,[33] as represented in Figure 2 below:

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[29] The Langackarian sense of the 'Agent-like' properties of the middle Subject cannot be equated with Van Oosten's (1986) semantic notion of 'responsibility', by which the middle Subject is attributed certain volitional nature or causal force similar to that encountered in ergative intransitives. Instead, Langacker's (1991a) 'Agent-like' properties are concomitant with Davidse and Heyvaert's (2007) 'letting' modal value or conduciveness of the middle Subject, as explained in sections 2.3.1.1 and 2.3.1.2.

[30] See section 2.3.2 for a reanalysis and detailed discussion on this topic.

[31] See also Sakamoto (2001: 101). The author uses the term 'unaccusative-based' middles to refer to what has been named 'ergative-like' middles in this dissertation. In the traditional literature, the notion of 'unaccusativity' might evoke a class of intransitive verbal predicates which are not middable (*i.e.*, pure intransitives like 'arrive', and 'go'). Hence, even though the family-resemblance analysis provided here is based on semantic grounds, in order to avoid certain syntactic misunderstandings related to the nature of the verbal predicates, the notion of 'ergative-like' middle is preferred over that of 'unaccusative-based'.

[32] According to Kemmer (1993: 269-270), one of the middle uses found within her list of the entire continuum of middles refers to 'spontaneous events', obviously involving ergative verbs. This type of verbs allows for a wide range of affectedness of the middle Subject, from definite changes of state to moderate ones. Within this group of spontaneous events, the author distinguishes several situation types. For example, the verbs 'break', 'open' and 'close' are subsumed under the category of spontaneous events associated with inanimate beings. They differ in the degree of affectedness. Thus, the verb 'break' is thought to face a partial disruption of the object's material integrity, whereas the verbs 'open' and 'close' refer to moderate changes affecting an object-specific category, in this case, '*port*'.

[33] In Davidse and Olivier (2008: 180), it is suggested that their type of verbal predicates called *decoding* verbs are syntactically and semantically related but not identical to those verbal predicates the authors call *material* predicates. Therefore, 'middles with *decoding* verbs' (like '*This book reads easily*') are
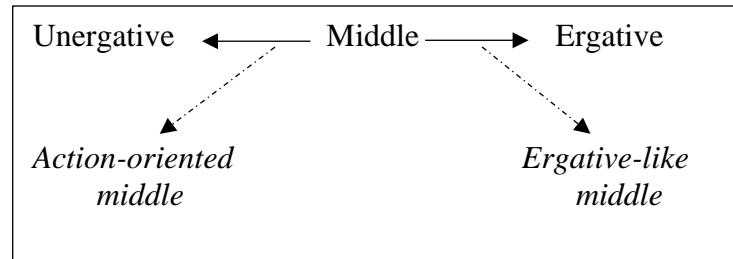
Figure 2. Action-oriented and ergative-like middles[34]

If we were to establish an 'Agentivity scale' to elucidate the degree of implication of the Agent participant in each situation, we would find cases ranging from the highest level of agentivity or volition (located at the purely unergative space, where the Agent participant is the most salient one), followed by those cases of unclear intersection between the unergative and the middle interpretation, *i.e.*, action-oriented middles. The centre of the 'Agentivity scale' would be occupied by the most prototypical members of the middle class, followed by those cases of blurred limits between the middle and the ergative reading (*i.e.*, ergative-like middles), characterised by the affectedness of their nominal entities. And finally, the lowest level of agentivity (implying a higher level of affectedness of the Subject entity) would be located at the purely ergative space, where the role of the Agent participant is totally backgrounded. See also Marín Arrese (2011: 3) in this regard.

The semantic role of the middle Subject depending on its degree of agent-like nature (in the sense of Langacker, 1991a) or its degree of affectedness is explored in depth in Section 2.3.1. In synthesis, a middle Subject occurring in an ergative-like structure will be considered a Patient, given its high level of affectedness. On the contrary, a middle

distinguished from 'middles with *material* verbs' (such as '*This car drives easily*'). However, both subtypes are catalogued here as 'action-oriented middles' since both require *action-like* predicates that "can naturally be used in the progressive to represent ongoing actions" (2008: 179). As the authors put it, middles with *decoding* verbs "involve conscious processing and require a human agent capable of semiotic activity", hence they "also have the '*action*'-*characteristics typical of verbal predicates*", which "distinguish them from mental predicates such as 'know' and 'understand'" (2008: 180; emphasis added).

[34] Adapted from Palma Gutiérrez (2021b: 165).

Subject referent appearing in an action-oriented structure will fulfil the role of Enabler,[35] provided its somewhat 'agent-like' nature and its relatively low degree of affectedness.

The term 'Enabler' is somewhat based on O'Grady's notion of 'Actualizer' (1980: 61-62), though adding some more precise semantic and cognitive implications. According to O'Grady, the middle construction (which the author calls 'derived intransitive') is characterised by the incorporation of a non-agentive Subject referent which "may serve as *actualizer* (…) only because certain qualities inherent in it are seen to have some effect on the event denoted by the verb" (1980: 62; emphasis added). In saying so, the author is following Van Oosten's (1986) notion of 'responsibility', by which the middle and the ergative structures are equated in terms of the causal force attributed to their Subject entities. However, as detailed in sections 2.3.1.1 and 2.3.1.2, this semantic notion of 'responsibility' is redefined as the functional-cognitive notion of 'conduciveness' instead (*cf.* Davidse and Heyvaert, 2007). With this, the foregrounded middle Subject is subjectively assessed by the speaker as being conducive to the action by virtue of the contextually invoked properties of this non-agentive entity.

In addition, O'Grady's notion of 'actualizer function' of the middle Subject refers to both affected and non-affected entities as middle Subjects; however, a semantic distinction should be made. Thus, the idea elaborated here concerns a semantic differentiation between them. On the one hand, those affected entities would coincide with the traditional semantic role of Patient, whereas the non-affected ones could be catalogued as Enabler entities (*cf.* Palma Gutiérrez, 2021b: 166).

For the moment, let us start by briefly examining the traditionally accepted features of prototypical middles[36] (*cf.* Fagan, 1992; Keyser and Roeper, 1984; Van

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[35] Tsunoda (1985) distinguishes between 'resultative' and 'non-resultative' transitive verbs in order to show the degree of affectedness of the Direct Object. Resultative transitive verbs like 'kill', 'break' and 'bend' are defined as those "which describe an action that not only impinges on the patient but *necessarily creates a change* in it", whereas non-resultative transitive verbs like 'hit', 'shoot', 'kick' and 'eat' are defined as those which do not necessarily imply a physical change in the Patient (Tsunoda, 1985: 387-388, emphasis added). This distinction supposes a further semantic refinement of Hopper and Thompson's (1980) affectedness parameter in their scale of transitivity.

[36] Following Hopper and Thompson's (1980) semantic parameters of transitivity, it should be noted that the middle construction does not manifest the traditional morphosyntactic and semantic features of the transitivity scale. In fact, for each of the parameters, it generally saddles between the two options of the dichotomy rather than adhering to a definite one. This reveals that, in terms of the transitivity scale, it is irrelevant to take a position with respect to the issue of the direction of the derivational process, either from transitive to intransitive, or *vice versa*. For example, the Affectedness parameter entails a two-possible

Oosten, 1986; Levin, 1993; and Iwata, 1999; among others) to later explore the less central cases at each side of the neighbouring spaces of the spectrum:

(i)   The entity occurring in Subject position is identified as an affected Patient,[37] therefore, corresponding to the Object of the transitive alternation.

(ii)   The verb is a transitive one used in its intransitive form.

(iii)   There is an implied Agent which is never projected in the syntax but semantically recoverable, and whose nature is generic or arbitrary.

(iv)   The aspectual features of the middle involve a property or generic reading of the Subject entity which prevents an eventive reading.

(v)   Adverbial (or other type of) modification is necessary.

(vi)   The Subject entity is construed as (being subjectively assessed by the speaker as) possessing certain inherent properties which are conducive to the carrying out of the action denoted by the predicate.[38]

The relevant issue here is that, contrary to what it has been largely considered in the literature, a purely central instance of the middle class is not easy to find, if not totally impossible. Instead, a given middle expression might be slightly inclined towards one of the two sides of the spectrum. Therefore, the more prototypical features in terms of middlehood are complied, the more central a given middle structure will be, though finding the purest status might be a difficult task. Subsequently, the number of these prototypical features found in each case can tilt the balance in favour of either the unergative or the ergative-like nature of the middle structure on each occasion. Marginal members of the middle construction will share some properties with the neighbouring categories within the spectrum, and may even have an ambiguous interpretation.

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option for the middle construction: totally affected Patients as well as 'non-affected' Enablers. For a detailed examination on the prototypical features of the middle, see Section 2.3.

[37] Paradoxically, in the literature, many scholars advocate the so-called Affectedness Constraint for the grammaticality of a middle expression despite accepting canonical structures that contradict this condition. In other words, certain middles containing an Enabler rather than a Patient entity in Subject position have been catalogued as prototypical middles in the literature. Thus, a sentence like '*This book reads easily*' is traditionally thought as being a canonical middle, although no definite change of state occurs affecting the entity construed as Subject (*cf.* Fagan, 1992; Levin, 1993; among others). This issue is explored in depth in Section 2.3.1.1.

[38] See Section 2.3 for a detailed account on the issues listed here, including the reanalysis of some of them.

Let us continue with the exploration of the main similarities and differences between the middle and the ergative constructions,[39] to later examine the cases of semantic fuzziness which give rise to the class of ergative-like middles. Consider the following instances in this regard, the first one being a middle instance and the second, an ergative structure:

(6)   *Basswood carves easily and is lightweight.*

(7)   *A minute later the door opened again.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In general terms, both the middle and the ergative constructions contain a single participant involving the grammatical function of Subject, though not working as the Agent carrying out the action, but rather chiefly fulfilling the semantic role of Patient (*cf.* Levin, 1987). Thus, both structures (middles and ergatives) are characterised by the fact that their only projected participant is *affected* by the action denoted and suffers from a *change of state*, whereas there is no syntactic projection of a second argument, *i.e.*, the Agent, by means of a passival *by-* phrase (Langacker, 1991b: 334). The main difference is that the middle construction instantiates an implicit agentive participant at some level of representation, whereas the ergative structure generally supresses this argument at all levels (although the *spontaneous* action cannot occur without a *cause*).[40] Consider examples (8) and (9) to this effect:

(8)   *There are people who say that <u>glass breaks easily</u> but it is evident that it all depends on your handling.*

(9)   *The glass broke and I recall being covered in blood.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Even though both examples imply a change of state, in example (8), it is an implicit and generic/arbitrary Agent who eventually carries out the breaking activity and which is made explicit only in the contextual situation surrounding the middle structure, whereas in (9), the situation is presented as occurring spontaneously. In this case, the

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[39] For a detailed description of syntactic, lexical and semantic differences between the middle and the ergative constructions, see Keyser and Roeper (1984); Fellbaum (1986); Van Oosten (1986); Fagan (1992); Levin (1993); among others.

[40] According to Kemmer, even though the spontaneous process type illustrated in the ergative reading of a sentence points at the lack of a "*causer* identified as Agent in the described situation (…), one could always imagine a *natural or supernatural initiator* for such event types" (1993: 208, emphasis added).

breaking of the glass could be provoked by different *causes*, like the unwilling action of a person, strong wind, the hitting of a ball against the glass, etc. Then, in the case of the ergative, the role of the Agent is even more backgrounded than in the middle. Ergatives construe the situation denoted by the verb as conceptually autonomous, with the minimal involvement of an Agent (Langacker, 1991b).

In other words, an ergative structure "construes a thematic process in absolute fashion, without reference to the force or agent that induces it" (Langacker, 2008: 385). In contrast, a middle structure "does invoke causation but leaves it unprofiled" (Langacker, 2008: 385). More particularly, the adverbial 'easily' appearing in example (8) above denotes the deliberate effort or force of an agentive participant which remains implicit (but it is recoverable from contextual information), whereas the only encoded focal element is the profiled non-agentive argument. In fact, along the lines of Talmy's (1988, 2000) force dynamics,[41] Langacker assures that when the middle is construed with an ergative verb, it "adds a force-dynamic component to a thematic process whose construal would otherwise be absolute" (2008: 386). That is, even though the middle construction is syntactically agentless (as ergatives are), there exist a latent agentive force which is completely lacking in ergatives.

What is relevant here is the fact that both middles and ergatives are *syntactically* instantiated by the pattern [N$_1$ - V] assumed for one-argument constructions. Similarly, both structures are also *semantically* related up to the point that some peripheral members of the middle class share fuzzy boundaries with the ergative category.[42]

Therefore, the schema motivating the extension of the middle from the ergative is found in cases in which the neighbouring intersection between both structures seems to be blurred, as illustrated in (10) and (11) below:

(10)   *The door closes, and the engine starts up*.

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[41] Talmy's (1988, 2000) force-dynamics is addressed in depth in Section 2.3.1. in order to explore the clash of forces operating in the middle construction.

[42] The overlap between the middle and the ergative structures has largely been examined in the literature. In this regard, scholars like Keyser and Roeper assume that the contrast between the ergative and the middle structure is "apparently obscure" in certain contexts, since a great number of verbs can "fall into both categories" (1984: 382).

(11)   *Make sure <u>the door closes easily</u>*. (enTenTen13 corpus, Concordance
         section, Sketch Engine)

Irrespective of the presence or lack of the adverb 'easily', these two examples
reflect an ambiguous reading between the middle and the ergative interpretation,
revealing the semantic relatedness between these constructions, as detailed hereunder.
However, one of the generally accepted features ascribed to prototypical middles is the
requirement of adverbial (or some other type of) modification.[43] Then, although both
examples can have a middle reading, instance (10) would be closer to the ergative class
than (11), if the above-mentioned 'Agentivity scale' is considered.

Even though both examples instantiate a certain change of state of the 'door' in
question, they express situations of a different nature, as they differ in their aspectual
properties. On the one hand, the ergative reading of (10) designates a perfective event,
i.e., it implies eventiveness, being interpreted as if the change of state would be a
spontaneous one-time event, caused by some external force like the strong wind, for
example. On the other hand, the middle reading of (10) involves an imperfective, property
reading, *i.e.*, it can be interpreted as if a *stable-over-a-period-of-time inherent property*
of the 'door' enables its opening (ultimately carried out by an implicit and arbitrary
Agent). Therefore, "this construal serves as the schema that enables the extension of the
eventive unaccusative to the noneventive middle" (Sakamoto, 2001: 94).

Similarly, example (11) also possesses an ambiguous reading between the middle
and the ergative interpretation. According to Fellbaum (1986: 6), this is due to the
polysemous nature of the adverb *easily*. In the middle reading of (11), the adverb *easily*
means 'with ease', 'with no difficulty'; whereas in the ergative interpretation of (11), the
same adverb would mean 'at the slightest provocation'. Therefore, according to this
explanation, the middle reading of (11) could be paraphrased as '*The door closes easily;
you just have to press down*', whereas the ergative interpretation would be '*The door
closes easily; it only takes a gust of air*'. In fact, as Sakamoto points out,

> [t]he distinction between the middle and the unaccusative depends on the extent to which
> the action of the human Agent is implied. The more the action of the human Agent is
> implied, the more middle-like the sentence is. Based on this observation, it seems quite

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[43] See Section 2.3.4 for more details about the types of other-than-adverbial modification in the middle
construction.

natural that it is sometimes hard to draw a clear-cut distinction between the middle and the unaccusative. (Sakamoto, 2001: 96)

Middles like those illustrated in (10) and (11) above would belong to the merging class of ergative-like middles (Sakamoto, 2001). Therefore, in order to differentiate the middle interpretation from the ergative reading, it is fundamental to examine the contextual and discourse-referential information surrounding the utterance. In fact, this is reflected in the way the corpus of this dissertation is analysed by means of a usage-based methodology.

Similarly, other peripheral members of the middle class, now located at the opposite side of the spectrum, seem to merge with the unergative category, as illustrated in examples (12) and (13) below. This would be the case of the so-called '*action-oriented middles*' (*cf.* Sakamoto, 2001).

(12) *For some reason, he wrote his treatise in Latin, but <u>the title translates easily</u>*. (Sakamoto, 2001: 95)

(13) *<u>The book reads easily</u>, is informative and quite interesting*. (enTenTen13 corpus, Concordance section, Sketch Engine)

Action-oriented middles are characterised by possessing a thematic entity in Subject position which is *not patientive* in nature. Therefore, the action-oriented middle Subject is a type of participant which is *not affected* by the action denoted in the same way it is affected in ergative-like middles.[44] That is, a definite change of state as generally understood is not produced. Of course, the Subject entity undergoes some change, as it is influenced by the action denoted, but such a change is not a dramatic one. For instance, the 'title in Latin' in (12) or the 'book' in question in (13) do not suffer from any type of definite or dramatic change of state due to the translating or the reading activities, since they are not affected participants. Consequently, according to the analysis carried out in this dissertation, it is not that the translating or the reading activities are just *easily* performed; it is that the 'Latin title' and the 'book' in question are subjectively assessed by the speaker as possessing certain inherent properties that allow their processes to be carried out *with ease* by the implied Agents. This translatability or readability respectively ascribed to the 'title in Latin' or to the 'book' is what allows us to conceptualise the

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[44] For a detailed explanation on the so-called Anti-affectedness Constraint, see section 2.3.1.

entities as acting with certain Agent-like properties in the sense of Langacker (1991a) (*cf.* Sakamoto, 2001: 99).

Therefore, in the 'Agentivity scale' proposed before, action-oriented middles would profile the Agent-like properties of the Subject entity at a higher level than the ergative-like middles do, as if a pseudo-volitional act were implied, even in the case of inanimate entities. Whereas it is an effortless task to imagine that a human Agent is responsible for some action, it is more difficult to think of an inanimate entity in this situation. Yet, when the inanimate entity in question is conceptualised as deciding on the manner of action or how the action can be carried out, it would be natural to think of this entity as being "responsible for the influence of its force" (Sakamoto, 2001: 103).[45] As Sakamoto explains,

> [a] certain property of the entity controls how the action of the human Agent acting on the entity can be carried out, and as a result the human Agent gains some experience – for instance, with respect to the degree of ease or difficulty in carrying out the action specified by the verb. (Sakamoto, 2001: 101)

Thus, the process of motivated extension from the unergative to the middle instantiates this profiled Agent-like property in the case of the middle participant without implying a definite change of state in the entity construed as Subject.

Therefore, whereas ergative-like middles are related to "the construal that a certain property of the entity specified by the subject determines *how the change of state proceeds*", action-oriented middles are associated with the construal that a certain property of the Subject entity determines "*how the action specified by the verb proceeds*" (Sakamoto, 2001: 101, emphasis added).

In terms of the 'Agentivity scale' previously proposed, the intransitive structures of the spectrum would be distinguished as a matter of degree ranging from maximal volition to maximal affectedness, *i.e.*, from unergativity to unaccusativity, respectively.

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[45] Sakamoto's (2001) analysis at this point, although using the Langackarian notion of 'Agent-like properties', seems to rely on the so-called 'ergative fallacy', by which the 'responsibility' (in the sense of Van Oosten, 1986) of the middle Subject is equated with that of the ergative structure. However, as explained in sections 2.3.1.1 and 2.3.1.2, this notion of responsibility is redefined by Davidse and Heyvaert (2007) in terms of the subjective speaker-assessment of the conduciveness of the contextually invoked properties of the middle Subject to the action. Therefore, it is not that the middle Subject possesses certain inherent properties which are responsible for the carrying out of the action; rather, it is the speaker's subjective assessment of such properties what is evaluated as being conducive (or not) to the action.

The more Agent-like an entity in Subject position, the least affected it will be. The converse should also be true; the more affected an entity construed as Subject, the least Agent-like properties it should possess.

Contrary to those approaches that categorise the middle construction chiefly in terms of the so-called Affectedness Constraint[46] (*i.e.*, establishing the criterion of the incorporation of an affected patientive entity suffering a change of state in order to validate the middlehood of the sentence), the analysis carried out in this project allows the accommodation of other less prototypical cases of middles within the complex category by virtue of the prototype effects of the construction. In fact, according to this approach, not only action-oriented middles possess non affected entities (*i.e.*, Enabler Subjects), but also other more marginal segments on the category. Therefore, action-oriented middles are also characterised for being able to motivate further extensions of less prototypical middles in which the Subject referent is an Oblique,[47] particularly instantiated by a Setting (either Locative or Means)[48] or an Instrument entity, as respectively shown in examples (14) – (16) below:

(14)   *The lake fishes so well* that all methods will work.

(15)   *The playful nature of this piece reminds me of Ray Lynch, and it's impossible to keep the feet still while the music dances and swirls with delight.*

(16)   *That camera hunts like a maniac.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In addition, ergative-like middles can also motivate other extensions of marginal category members in which the Subject entity is also an Oblique, specifically an Experiencer or an Instrument,[49] as illustrated in (17) and (18) below:

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[46] See Section 2.3.1. for a detailed explanation on the notion of the 'Affectedness Constraint'.

[47] For a detailed explanation on Oblique entities working as middle Subjects as well as an in-depth analysis of the inheritance hierarchy of the family-resemblance nature of the middle construction, see Section 2.3.2.

[48] The distinction between the terms 'Locative' and 'Means' appears in Heyvaert (2003: 130). These terms are subsumed under the label 'Setting' in Sakamoto (2001).

[49] As clarified in Section 2.3.2, the metonymically-motivated extensions of the Instrument-Subject middle are found at both sides of the spectrum, depending on the unergative/ergative nature of the predicate and the presence or not of an (implied) Patient.

(17)   *If you are the type of <u>person who discourages easily</u>, you might want to achieve some minimum level of fitness before beginning the P90X program.*

(18)   *A sharp knife cuts well.* (enTenTen13 corpus, Concordance section, Sketch Engine)

A discussion on the nature of these extensions of the middle prototype is provided in Section 2.3.2. In the literature, Oblique middles have generally been treated as extremely marginal members or even simply members of other-than-the-middle class, located somewhere within the group of intransitives. It might be due to the fact that, in these cases, the entity construed as Subject does not coincide with the prototypical patientive entity.

As attested in the compiled and analysed corpus of this project, Instrument middles are quite productive (see Chapter 4 in this regard). This could be explained on the basis that a metonymic relation between a human Agent and a physical object or instrument that can be manipulated by the Agent is more easily conceptualised (and thus conventionalised) than a metonymic relation between a human Agent and, for example, the location in which such an entity is found to carry out the action described by the predicate. In other words, it is more productive to relate Agent-like or pseudo-volitional properties to instruments than to locations.

In Oblique middles, like in non-Oblique middles, certain features of the Subject referents (either Instruments Settings, or Experiencers) are assessed by the speaker as being conducive (or not) to the action denoted by the verb as specified by the adjunct. That is, an inherent quality of the 'knife' in (18), like having a sharp edge, is evaluated as enabling the implied agentive participant to carry out the cutting activity *well*.[50] Likewise, the contextually invoked properties of the 'camera' in (16), like its quality and speed, is assessed as being conducive to the metaphorical hunting activity, taking pictures *like a maniac*. For its part, an inherent property of the 'lake' in (14), like its clear-water state, is depicted as letting the implied Agent to perform the fishing activity *well*. Similarly, an inherent property of the 'music' in (15), such as its beat and swing (as compared to the beat and swing of other types of music), is subjectively assessed by the speaker as letting

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[50] See Davidse and Heyvaert (2007) and Heyvaert (2003) on the 'letting' modality value of the middle construction.

the implied Agent to carry out the dancing activity *with delight*. Finally, an inherent property of 'the people' in (17), namely, an intrinsic property of their personality by which they tend to feel discouraged, is evaluated by the speaker as enabling one to carry out the discouraging event over them *easily*.

By way of conclusion, it could be said that the distinction between ergative-like and action-oriented middles seems to be motivated by the type of verb employed. Verbs like 'break' and 'open' lexicalise a change of state, but "they are vague to the manner of action that causes the change of state" (Sakamoto, 2001: 95). Hence, these verbs are also acceptable in ergative structures, given that the implication of an Agent or any type of force provoking the change of state is backgrounded in the utterance, whereas the change of state of the entity construed as Subject is foregrounded. On the other hand, verbs like 'drive' and 'read' "focus on the manner of action, but do not specify the change of state caused by the action" (Sakamoto, 2001: 95). Therefore, the implication of an Agent is less backgrounded than in ergative-like middles, as a volitional act of driving or reading is implied.

Henceforth, the construal of a situation which includes a verb specifying a *change of state* would be closer to the ergative construal than a verb specifying the *manner of action*, which would be connected to the unergative construal. This is the way in which the middle construction is understood as a motivated extension from both the ergative and the unergative categories, merging with them into diffused boundaries which produce, respectively, the overlapping space for ergative-like and action-oriented middles.

Summarising, from a cognitive perspective, the existence of fuzzy boundaries between the middle and other syntactically intransitive structures entails that the middle construction cannot be considered a discrete category of its own, but rather, a prototype category. However, both the most prototypical members as well as the most peripheral ones at each side of the spectrum share an abstract commonality which is expressed by means of their syntactic and semantic relatedness within the cognitive network encompassing the unergative, the middle, and the ergative space. The segments on the continuum are unanimously represented by the syntactic pattern $[N_1 - V]$, assumed for intransitives. In addition, all of the segments on the middle prototype category (either central or peripheral) are subsumed under the semantic commonality of the Agent-like properties of the Subject entity, by which certain features of the Subject referent are subjectively assessed by the speaker as being conducive to the carrying out of the action

denoted. When such properties specify how the change of state proceeds, we would be referring to ergative-like middles with affected Patients as Subject; whereas in those cases in which the Agent-like properties of the entity construed as Subject specify how the action is carried out, we would be dealing with action-oriented middles with non-affected Enabler Subjects.

2.3. Properties of the middle construction

This section deals with the main features that capture the nature of the middle construction in English. In Section 2.3.1, the notion of subjecthood and agentivity are examined in terms of the focal prominence and exertion of force among different nominal entities competing within a hierarchy of power. Section 2.3.2 provides the family-resemblance analysis of the middle construction by virtue of its prototype effects. Then, in Section 2.3.3, the aspectuality of middle verbs is analysed. Finally, Section 2.3.4 deals with the nature of the adverbial modifier, including a classification of middles regarding the semantics of the adjunct.

2.3.1. Force dynamics in the middle construction

Many scholars have attempted an explanation for the apparent disruption of the prototypical balance between the Agent and the Patient in the middle construction as compared with the order found in its unmarked active counterpart.[51] In this regard, formalists generally favour one of these two ideas: (i) the deletion of one of the thematic roles by means of a syntactic operation called Move-α relying on the promotion of the Patient and the demotion of the Agent (Keyser and Roeper, 1984; Hale and Keyser, 1986; Dixon, 1982); or (ii) the refusal to such elimination of a thematic role by arguing that the implicit Agent is syntactically absent but semantically recoverable, provided its arbitrary and generic nature (Fellbaum, 1985: 29; Roberts, 1987; Fagan, 1992; Levin, 1993: 25).

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[51] Even though the term 'Patient' is used in this section to indicate the generally accepted semantic role of the middle Subject, in fact, it subsumes the following elements: (i) the distinction already explored in Section 2.2 between *Patient* and *Enabler*, respectively occurring with ergative and unergative verbs; and (ii) other metonymic extensions of the middle structure in which the Subject entity fulfils the role of Instrument, Locative, Means, or Experiencer, which will be dealt with in Section 2.3.2.

From a functional and/or cognitive perspective, those cases in which a non-agentive participant occurs in Subject position are also generally analysed as a deviation from the general rule of transitivity,[52] but they are understood as a matter of topicalisation in pragmatic terms (Givón, 1993; Lemmens, 1998: 72; Langacker, 1991b: 334). In fact, by refusing the premise of the traditional valency approaches that the verb is the element which determines all its valents (*i.e.*, nominal complements), Langacker proposes that verbs are conceptually dependent (1991b: 14), so the lexical meaning of a verb is elaborated by these nominal complements (1987: 308-310). As Davidse and Heyvaert write, "[v]erbs designate processes, *i.e.*, events, energetic interactions, relations, etc., but these processes cannot be conceptualized separately from the participants in the processes" (Davidse and Heyvaert, 2007: 40).

Therefore, participants become topical "by virtue of the information being about them" (Givón, 1993: 201). Topicality is coded at the level of propositional information, *i.e.*, at the level of the clause. However, "topicality is not functionally a clause-level phenomenon, but rather a discourse" (Givón, 1993: 202). As the author states,

> [w]hat makes a clausal participant topical is not its status as the grammatical subject, object or 'marked topic' in a self-contained clause. Rather, a participant is coded by various topic-marking means because *it is topical across a multi-clause span*. That is, because it is important, recurrent, or *being talked about in the discourse*. (Givón, 1993: 202; emphasis added)

Accordingly, turning back to the middle construction, the non-agentive participant becomes topicalised in the middle structure and it is thus promoted to subjecthood, not only because it is the syntactic structure which is chosen by the speaker as the most appropriate pragmatic option at the given moment (*cf.* Hendrikse, 1989: 374), but also because at the multi-propositional level it displays discourse coherence for being a recurrent and relevant participant which is *talked about* along the text.

However, the issue at hand now resides in explaining how the grammatical Subject of the middle structure is cognitively construed as such: that is, how the conceptual content (provided by certain domains of the meaning of a linguistic expression) is accessed or activated inducing the building of a certain *construal*, one in

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[52] According to Langacker (2013b: 213), contrary to the formalist postulates, grammatical notions such as 'Subject', 'Object', 'transitivity', and the like, possess a conceptual basis.

which a particular nominal entity becomes the grammatical Subject of the middle construction, hence relegating the Agent to the background.

According to Langacker (2013a), the notion of *prominence* is particularly accurate to address this issue, and more specifically, the type of prominence which the author calls *trajector/landmark alignment*, as detailed below (see also Marín Arrese, 2011: 6).

Like other dimensions of construal, *prominence* is depicted as a conceptual phenomenon, "inhering in our apprehension of the world, not in the world *per se*". Therefore, determining how prominent a given entity is "depends on the construal imposed by the linguistic elements employed, in accordance with their conventional semantic values" (Langacker, 2013a: 72-73). The terms 'prominence' and 'salience' can be interchangeably used here. The two types of prominence dealt with by the author are *profiling* and *trajector/landmark alignment*. For its part, *profiling* refers to the construct by which a particular substructure of the 'onstage' portion of the immediate scope or foregrounded domain of a linguistic expression is portrayed as the focus of attention,[53] *i.e.*, as a profile or conceptual referent. As Langacker puts it, "an expression's profile stands out as the specific *focus* of attention within its immediate scope" (2008: 66, emphasis in original). In fact, "[a]n expression can profile either a *thing* or a *relationship*" (2013a: 67, emphasis in original), that is, an entity or an event, respectively. Consider the following examples in this regard:

(19)   *Floyd hit/broke the glass with the hammer.*

(20)   *The hammer hit/broke the glass.*

(21)   *The glass (easily) broke.*

(22)   *Floyd hit the hammer against the glass.* (Langacker, 2013b: 220)

The scope of predication of these four examples invokes a different portion of the overall *canonical action chain*. A canonical action chain refers to a configuration in which different *energetic interactions* take place within an interactive network. Particularly, an

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[53] Langacker explains that metonymy can be defined as a phenomenon consisting in 'a shift in profile'. Particularly, "we speak of metonymy when an expression that ordinarily profiles one entity is used instead to profile another entity associated with it in some domain" (2013a: 69). Consider the following sentence: 'Shakespeare sells well'. In this middle construction, the entity 'Shakespeare' is profiled and thus construed as Subject of the structure; however, the referent 'Shakespeare' designates metonymically the work(s) of the author in question. That is to say, the profile 'Shakespeare' shifts from the human entity to the associated information, in this case, his sonnets, for example. More precisely, in this occasion, we speak of the conventional pattern of metonymy understood as an 'extension from artist to artistic creation' or AUTHOR FOR AUTHOR'S WORK (see also Barcelona, 2011: 11).

action chain describes how a participant (*i.e.*, the Agent) transfers energy to another participant (*i.e.*, the Instrument), provoking a reaction in a third participant (*i.e.*, the Patient) (Langacker, 2013b: 218). The sequence Agent – Instrument – Patient reveals the flow of energy within the action chain.

Therefore, the canonical action chain represented in (19) – (22) above depicts the energetic interactions occurring among 'Floyd', 'the hammer', and 'the glass', functioning respectively as the Agent, Instrument, and Patient participants. These three semantic roles can be encoded as the grammatical Subject of a construction, whereas the only possible values for the grammatical Object are reserved for either the Patient or the Instrument. In other words, example (19) designates the entire action chain; example (20) profiles the interaction between the Instrument and the Patient; the middle structure exemplified in (21) designates the change of state affecting the Patient; and example (22) profiles the Agent's manipulation of the Instrument against the Patient (*cf.* Langacker, 2013b: 220).

The profiling of a participant as the grammatical Subject of the construction is anything but random. In fact, this follows from *the flow of energy of an action chain*; in other words, it follows the sequence Agent > Instrument > Patient (Langacker, 2013b: 221). Langacker's conceptualization of the action chain is thus indisputably consistent with Talmy's (1988, 2000) force-dynamics.[54]

According to Talmy, force dynamics is understood as a semantic category dealing with "how entities interact with respect to force", including phenomena like "the exertion of force, resistance to such force, the overcoming of such a resistance, blockage of the expression of force, removal of such blockage, and the like" (Talmy, 1988: 49; 2000: 409).[55] By means of the conceptualization of force dynamics, Talmy analyses the

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[54] Functional-cognitive, lexical-semantic and constructional approaches to this issue also offer a compatible view with both Langacker's idea of the flow of energy in an action chain and Talmy's theory of force dynamics. For example, scholars like Davidse and Heyvaert (2007: 73), Goldberg (1995: 43), Iwata (1999: 545), Jackendoff (1990: 48), or Ackema and Schoorlemmer (1994) propose the distinction between the syntactic and the semantic levels of analysis. It is at the conceptual structure of the lexical verb (rather than at the argument structure) that the accommodation of the semantically implied agentive participant of the middle construction is allowed.

[55] Talmy's (1988, 2000) purpose is to place 'force-dynamics' on an equal footing with regard to other fundamental semantic categories like number, aspect, mood, etc.

linguistic notion of 'causative' into more basic primitives, including notions like 'letting',[56] 'hindering', and 'helping', among others (1988: 50; 2000: 409).

The patterns found in force-dynamics represent the "steady-state opposition of two forces", that is, the opposition between the two entities exerting the forces, namely identified with the semantic roles of Agonist and Antagonist. The *Agonist* is recognized as "the focal force entity", whereas the *Antagonist* is referred to as the second force entity that opposes the Agonist. Therefore, the Agonist is seen as the "force-exerting entity" which is "singled out for focal attention". In its interaction with the Antagonist, the Agonist can either express its force tendency or it can be overcome. Correlatively, the Antagonist "is considered for the effect it has on the [Agonist], effectively overcoming it or not" (Talmy, 1988: 53; 2000: 413). In the default pattern, the Agonist is stronger than the Antagonist and thus it occupies Subject position in the utterance. Conversely, when the Antagonist is stronger, logically, it is the entity which occurs as Subject. As Talmy puts it,

> the Agonist can be foregrounded by subject status, while the Antagonist is backgrounded either by omission or as an oblique constituent (…). Alternatively, the same force-dynamic patterns can be viewed with the *reverse assignment of salience*, where the *Antagonist is foregrounded* as subject and the *Agonist backgrounded* as the direct object. (Talmy, 1988: 61; 2000: 423, emphasis added)

Therefore, Langacker's (2013b: 221) notion of the action chain, as represented by the sequence Agent > Instrument > Patient, is compatible with Talmy's 'agentive sequence', illustrated in '*I broke the vase (by hitting it) with a ball*' (1988: 60).

In addition, a complementary notion to that of profiling is Langacker's *trajector/landmark alignment*, which is also crucially important for the analysis carried out in this dissertation, as it can provide a genuinely *cognitive* explanation for the syntactic behaviour of the grammatical Subject in the middle construction.

In a basic transitive structure,[57] the nominal referents in a profiled relationship are identified as the participants of the process in question. Regarding the dimension of

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[56] The middle construction, according to Davidse and Heyvaert (2007), relies on a 'letting' modal value. This is addressed in detail in section 2.3.1.1 and 2.3.1.2.

[57] Langacker identifies the basic transitive structure with 'the canonical event model', defined as "a bounded, forceful event in which an agent (AG) acts on a patient (PAT) to induce a change of state" (2008:

clausal organization, such nominal referents or participants receive a distinct semantic role within the profiled process (like Agent, Patient, Instrument, Experiencer, etc.). These semantic roles are mapped onto different grammatical roles (essentially, Subject and Object). However, the fact of defining Subject and Object in exclusively grammatical terms poses some serious drawbacks, basically, the incongruencies found across languages. As Langacker puts it, if "the defining behaviours turn out to be different from one language to the next", this would imply a failure "to capture an aspect of linguistic organization that is widespread if not universal" (2008: 364).

In this regard, Cognitive Grammar offers a solution to this issue, based on the cognitive characterization of focusing of attention. In fact, both grammatical Subject and Object positions can be defined in terms of the Langackarian trajector/landmark alignment (Langacker, 1987: 231). As the author writes,

> [w]hen a relationship is profiled, varying degrees of prominence are conferred on its participants. The most prominent participant, called the *trajector* (tr), is the entity construed as being located, evaluated or described.[58] Impressionistically, it can be characterized as the *primary focus* within the profiled relationship. Often some other participant is made prominent as a *secondary focus*. If so, this is called a *landmark* (lm). Expressions can have the same content, and profile the same relationship, but differ in meaning because they make different choices of trajector and landmark. (Langacker, 2008: 70, emphasis in original)

Therefore, choosing one entity or another as trajector would reflect a given portion of the world for expressive or linguistic purposes (Langacker, 2013b: 218). In general terms, in a profiled relationship, the Subject would be identified as the nominal that codes the trajector (Langacker, 2008: 365). Accordingly, the fact that a profiled entity as the trajector is more cognitively salient does not necessarily imply that such participant possesses an agentive nature. Instead, an entity is construed as trajector "by virtue of how the situation is linguistically expressed" (Langacker, 2008: 73). As Langacker puts it, "trajector and landmark are defined in terms of primary and secondary *focal prominence*, not in terms of any specific semantic role or conceptual content" (2008: 72, emphasis in

357). Therefore, the canonical event model is characterised by encoding two focal participants, basically Agent and Patient, the former being the trajector and the latter the landmark. These two focal participants are chiefly mapped onto the grammatical roles of Subject and Object, respectively.

[58] This characterization of a trajector, in fact, is fairly close to Givón's (1993: 202) definition of a 'topicalised argument', the participant which is 'talked about'.

original). Hence, a prominent entity does not necessarily become equally salient in another structure. In fact, in examples (23) and (24) below the distribution of the entities recognised as trajector and landmark is explained as follows:

(23)   *Joe couldn't interview Doug well because he is not eloquent enough.* (Own elaboration)

(24)   *Doug just doesn't interview well, he's not exactly the most eloquent of speakers.* (enTenTen13 corpus, Concordance section, Sketch Engine)

The participant 'Doug' is construed as a landmark in (23) whereas it reaches trajector status in (24). More particularly, example (23) depicts a transitive form in which 'Joe' is the cognitively salient participant as it is conferred a primary focus status (*i.e.*, trajector) as grammatical Subject in the construction. Additionally, 'Doug' is recognized as a secondary focus of attention and it thus becomes the landmark, occupying the grammatical Object position. On the other hand, according to the analysis carried out in this dissertation, in the case of the middle structure encoded in (24), the animate entity which is talked about (that is, the topicalised entity 'Doug') is precisely the participant which is 'located, evaluated or described' on this particular occasion, consequently occurring as the grammatical Subject. 'Doug' becomes cognitively salient and it is established as the primary focus of attention, *i.e.*, as the trajector. Therefore, the middle construction adjusts "the focal prominence of processual participants, conferring trajector status on what would otherwise be the landmark" (Langacker, 2008: 361).

Langacker (2008: 113) identifies single-focal-participant relational expressions (*i.e.*, intransitive structures) with the sole occurrence of a trajector (without a landmark), therefore, they logically assign the Subject but not the Object position. Accordingly, Talmy holds that those sentences that codify "only one element can equally represent the same FD [force-dynamics] patterns" (1988: 55). Therefore, the fact that the middle construction only profiles one participant but does not project the Agent reflects the nature of this second participant within the construal of the situation: the implied Agent is mostly arbitrary, in fact, "*identifying* the agent is considered irrelevant" (Langacker, 1991b: 334, emphasis in original). Consequently, this participant does not receive sufficient focal prominence as to be codified in the utterance. However, "[a]lthough the agent is non-salient and left unspecified, it is nevertheless incorporated as an unprofiled facet of the base" (Langacker, 1991b: 335; see also Marín Arrese, 2011: 6). As further detailed in the following section (2.3.1.1), Davidse and Heyvaert assume that the middle construction "a

subject-oriented type of *letting modality* in which *the subject is the antagonist* conducive (or not) to the carrying out of the action by the *implied agentive agonist*" (2007: 70; emphasis added).

2.3.1.1. The letting value of the Subject referent

In this section, the semantic implications derived from the role of the non-agentive Subject in the middle construction are examined. Particularly, notions like the Affectedness Constraint, the requirement of a change of state in the Patient, the responsibility, the conduciveness of the Subject referent, and the letting modal value of the middle Subject set the stage for that purpose. In the following paragraphs, an explanation for the partial invalidity of the notions of Affectedness Constraint, change of state, and the responsibility of the middle Subject as generalised criteria for middlehood is offered. Instead, arguments in favour of a more global explanation including lexical-semantic and cognitive notions like the letting modal value and the conduciveness of the middle Subject are provided.

In general terms, as Davidse and Heyvaert explain, "in attempting to account for the constructional link between a nonagentive subject and an active VP, existing analyses have proposed generalizations pertaining to the *representational* semantics of the process depicted in the middle" (2007: 39; emphasis added). These generalizations refer to the following aspects: (i) the Affectedness Constraint (subsumed under the transitive constraint); and (ii) the idea that the middle Subject involves a kind of 'agentive' status, thus entailing an event which occurs 'autonomously'. However, Davidse and Heyvaert (2007), in their characterization of the middle as an *interpersonal* construction analysed from a functional-cognitive perspective,[59] successfully overcome those previous analysis

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[59] Davidse and Heyvaert (2007) rely on the distinction between the representational and the interpersonal layers in clause structure organization as claimed in functional frameworks like the Systemic Functional Grammar (Halliday, 1970, 1985) and Functional Grammar (Dik, 1991, 1997; Hengeveld, 1989). At the *representational* level (which is also called 'predicate formation' in Hengeveld, 1989), the main tasks regarding the issue of middle formation would involve "the selection of the lexical verb and the construal of semantic roles for the nominals related to the verb" (Davidse and Heyvaert, 2007: 38). On the other hand, at the *interpersonal* level, "the constructional organization relevant to the middle centers on the modal value of the finite and its relation to the subject, which in turn determines the integration with the whole of the predication" (Davidse and Heyvaert, 2007: 38). The implications for an analysis on the middle as an interpersonal construction are examined in the following paragraphs of this section.

either based on predicate selection valency constraints, or on semantic premises that attribute an ergative-like responsibility to the middle Subject, as detailed in the following paragraphs. Let us start by examining the attitudes towards the Affectedness Constraint and its counterexamples.

One of the most consolidated predicate-selection constraints proposed in the literature on middle formation is the transitive constraint, consisting in the idea that the lexical verb required in middle formation is transitive, thus blocking intransitives. Subsumed within this idea is the premise that the process of middle formation is based upon the notion of the Affectedness Constraint.[60] The Affectedness Constraint is understood as a condition on middle formation which establishes the criterion of the incorporation of an affected patientive entity suffering a change of state and occupying Subject position (*cf.* Levin, 1993: 26). However, this is a matter of controversy in the literature, and other approaches develop an alternative analysis and/or reformulation of the constraint understood as a critical reaction to the 'affectedness-supporters' approach (*cf.* Marlej, 2004; see also Davidse and Heyvaert, 2007: 39, 43-45). The second is the perspective taken in this dissertation, as explained hereunder.

The Affectedness Constraint was originally explored by Anderson (1977) and proposed as "a constraint on passive in NP […] to account for contrasts" as the ones found in the pairs of phrases illustrated in (25) and (26) below:

(25)   *a. the destruction of the city*

          b. the city's destruction

(26)   *a. the enjoyment of the play*

          *b. *the play's enjoyment*'* (Hoekstra and Roberts, 1993: 200).

As Anderson (1977) explains, passive in NP is blocked when the argument (as *play* in (26a-b)) is non-affected by the action denoted by the deverbal nominal (in this case, *enjoyment*). This same condition has traditionally been thought to operate in the middle construction as well, as those postulates based on the suppression of the Agent argument in the middle construction state. In this regard, Roberts claims that

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[60] See Hale and Keyser (1986: 606-607), Roberts (1987), and Hoekstra and Roberts (1993), among others.

[s]ince middle formation appears to involve the elimination of the original external argument, the Affectedness Constraint entails that transitive Verbs which take unaffected objects should be unable to form middles. (Roberts, 1987: 193)

The notion of the affectedness of an argument is closely related to that of 'change of state'. As Gropen *et al*. (1992: 159) explain, "[t]he argument which is specified as 'caused to change' in the main event of a verb's semantic representation is linked to the grammatical object". Sometimes, the feature 'change of state' subsumes 'change of location', given that it can also indicate a change of position (Goldberg, 1995: 83). Roberts' (1987: 210) definition of Theme argument coincides with those given intuitively by Gruber (1965) and Jackendoff (1972), *i.e.*, the Theme is understood as the affected argument that consequently undergoes a change of state.

According to Hoekstra and Roberts (1993), the Affectedness Constraint would account for the following cases, among others, in which the middle structure is ungrammatical: (i) middles with perception verbs (like (27) below);[61] (ii) middles with non-stative psych verbs (as illustrated in (28)); (iii) middles relying on *verba dicendi* (as instantiated in (29)); and (iv) middles with an Externalized Goal (as in (30) below):

(27)   *The mountains see best after rain*.

(28)   *Anniversaries forget easily*.

(29)   *Such news doesn't announce easily*.

(30)   *These ideas teach easily*. (Hoekstra and Roberts, 1993: 201-202)

Therefore, according to the authors, middlehood resides in the presence of an Externalized Theme,[62] as illustrated in (31) below:

(31)   *The apartment comes with a storage cupboard (cave) to store skis and equipment. This is a top location, would rent easily and therefore a good investment for a small budget*. (enTenTen13 corpus, Concordance section, Sketch Engine)

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[61] However, Davidse and Olivier (2008) explain that English middles with mental and verbal predicates are also allowed, as detailed in Section 2.3.3.2.

[62] In addition to the Externalized Theme, Hoekstra and Roberts (1993:202) also include other θ-roles like Experiencer and Location as arguments that can be externalized and, hence, occur in the middle construction in Subject position.

Henceforth, the process of middle formation "obeys the Affectedness Constraint", as Hoekstra and Roberts comment (1993: 203). However, this poses a problem for the account of NP-movement approaches, since the Affectedness Constraint seems to be a *thematic constraint* while the NP-movement is supposed "to operate in a manner which is 'blind' to thematic properties" (1993: 203). This type of conceptual issue is precisely the one that Ackema and Schoorlemmer (1994) attempt to solve with their own model of projection of arguments, as explained in the following paragraphs.

In addition, the Affectedness Constraint operation has also been challenged in the linguistic literature by means of canonical middle instances like those represented in (32) and (33) below:

(32)   [about <u>a book on spiritual content</u>] *'Deeply loved' is captivating! <u>It reads easily</u>, with great fluidity and softness.*

(33)   <u>*She photographs well*</u>. *And she loves to be recognized, to be praised, to be thanked for the gifts of need and beauty she supplies.* (enTenTen13 corpus, Concordance section, Sketch Engine)

The text in (32) and the woman in (33) are not affected by the actions denoted by their corresponding predicates. That is, the text does not undergo any change of state because of the reading process happening, neither does the woman suffer from any physical or psychological change due to the photographing action. In fact, from a semantic point of view, these two actions occur in a satisfactory way (*easily* and *well*, respectively) because of the positive and subjective speaker-assessment of the inherent properties of the Subject entities as being conducive to the action, not because of the skill of any particular Agent, as detailed down below.

Therefore, the Affectedness Constraint involves relevant conceptual and empirical failures. The fact that middles with no affected arguments (as the ones shown in (32) and (33) above) are largely considered as grammatical reveals that the Affectedness Constraint on middle formation is not a valid generalization, since it fails to account satisfactorily for some cases. In addition, any scholar advocating the condition of affectedness in the process of middle formation has offered an explanation for the counterexamples found. Consequently, authors like Ackema and Schoorlemmer (1994) intend a reformulation of the Affectedness Constraint, whereas scholars like Fagan (1992) propose the idea of replacing this condition with a lexical constraint based on the

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aspectual properties of the verb.[63] In a similar fashion, Croft (1990, 1991) claims that acceptability judgements on middlehood are a not a matter of grammaticality, but they are a question of cognitive plausibility.

Ackema and Schoorlemmer (1994) propose their own model of projection of arguments in the process of middle formation and they provide a presyntactic rather than a syntactic or a lexical answer to this issue. With this model, the authors argue that "the grammatical subject of a middle is its actual external argument" (1994: 59). By changing the focus from the internal to the external argument, Ackema and Schoorlemmer (1994: 74) reformulate the Affectedness Constraint on middle formation in these terms: contrary to the generalised trend, the Affectedness Constraint on middle formation would be understood not as a condition on the nature of the logical Object (*i.e.*, the Patient), but as a condition closely related to the nature of the logical Subject (*i.e.*, the Actor). Thus, Ackema and Schoorlemmer (1994) distinguish the roles of the Agent and the Actor. The former receives a semantic/thematic tier label, whereas the latter obtains a syntactic/action tier label, as detailed below. However, in more traditional classifications of arguments, both figures would fall under the same label, *i.e.*, that of Agent. By means of this distinction, the authors attempt to solve the problem encountered by the NP-movement approaches by which the Affectedness Constraint seems to work as a thematic constraint despite the premise of such approaches.

The solution proposed by Ackema and Schoorlemmer, then, provides a definition of the Affectedness Constraint as "a close approximation to a descriptive generalization" based on the idea that "if the logical subject is an Actor, the logical object will be a Patient" (1994: 74). According to this presyntactic postulate on middle formation, the Actor argument is non-projected at the syntactic level (but it is recoverable at the semantic level) because of its arbitrary nature (ARB).[64] In the middle construction, the Actor is semantically implied at the Lexical Conceptual Structure (LCS),[65] but it is syntactically absent.

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[63] Fagan's (1992) account of the lexical constraint on middle formation is addressed again in Section 2.3.3.

[64] The notion of ARB coincides with Fagan's (1992: 162) rule ('Assign *arb* to the external θ-role') to account for the lexically saturation process occurring in the process of middle derivation.

[65] The LCS would be identified as the level of analysis which operates at the presyntactic stage of the process of middle derivation. Being composed by semantic primitives, the information contained in the

Along the lines of Jackendoff (1990: 258), Ackema and Schoorlemmer (1994: 67) propose a thematic hierarchy which involves both the thematic and the action tier arguments found at the LCS. Such hierarchy would be ordered from the most to the least prominent role, as follows: Actor – Patient – Agent – Theme – Goal. As can be observed, the action tier arguments (Actor and Patient) become more prominent than the thematic ones (Agent, Theme and Goal).

This presyntactic classification of arguments allows the authors to conform a versatile model by which the presence of an Agent at the semantic level of analysis does not necessarily imply the occurrence of an Actor at the syntactic level. As the authors put it, "there is no fixed correspondence between an argument position at the action tier and an argument position at the thematic tier" (1994: 67).

According to this distribution of arguments, "the particular argument in a-structure that is highest on the thematic hierarchy will be the external argument" (1994: 72). However, when the first action argument (*i.e.*, the Actor) is non-projected, the following one (*i.e.*, the Patient) becomes externalised and it thus occupies Subject position in the utterance.

Remarkably, Ackema and Schoorlemmer claim that the condition for an ARB non-projected argument to implicitly occur is the existence of an action tier on the predicate. *State verbs* (like 'love' and 'hate') are generally considered non-middable because their Subject entities are non-affected arguments. Ackema and Schoorlemmer incorporate the idea that "this is a consequence of the fact that state verbs have no action tier" (1994: 74).

However, the authors also explore other empirical violations of the traditional notion of the Affectedness Constraint in those cases in which, even though the Actor argument is non-projected in the syntax, the construction lacks an affected Patient, as illustrated in examples (34) – (36) below:

(34)   *Mathilde has already written her story. It is written in French. Sometimes it translates poorly but the message is still there.*

LCS is divided into two different tiers: the thematic tier and the action tier. On its part, the thematic tier of the LCS "allows a structural definition of traditional theta-roles like Theme, Agent, Goal, etc."; and on the other hand, the action tier "encodes the affectedness relations between arguments of a predicate" (Ackema and Schoorlemmer, 1994: 66), namely Actor and Patient.

(35)   *Have you ever needed to copy or fax a document with information on both sides of the page? With the MF6550, now you can. Not only does it allow you to copy from both sides of the original, it also allows you to fax and scan a two-sided original without flipping the page.* <u>*Documents will transmit quickly*</u> *with Super G3 (33,6 Kbps) modem speed.*

(36)   *Since 1980, Alexander has remained active in a variety of positions relating to the U.S. Government.* <u>*Alexander's book reads like a novel but is based on hard facts*</u>*. It begins in West Berlin in 1963, while the author was on his first diplomatic assignment.* (enTenTen13 corpus, Concordance section, Sketch Engine)

As can be observed, the lexical verbs 'translate', 'transmit' and 'read' possess logical Subjects (Actors) which are not syntactically coded in these patterns (although they involve semantically implied Agents, understood as arbitrary entities or '*people in general*'). Nevertheless, they do not contain logical Objects functioning as affected Patients, since any of them (neither the French language, the documents or the book in question) suffer any kind of change of state produced by the actions denoted by their respective predicates. However, contrary to the requirement expressed by the Affectedness Constraint, these become grammatically accepted cases of middles. Ackema and Schoorlemmer (1994), then, fail to account for these empirical cases of counterexamples of the Affectedness Constraint, whereas the analysis carried out by Davidse and Heyvaert (2007), which is followed in this dissertation, provides a satisfactory answer, as explained in the following paragraphs.

Additionally, along the lines of scholars like Roberts (1987) and Fellbaum and Zribi-Hertz (1989), Fagan explores the Affectedness Constraint in the middle construction by arguing that "only predicates with *affected* arguments may form middles" (1992: 64; emphasis in original). The author follows Roberts (1987) in terms of equating the notions of Theme and affected argument, *i.e.*, the Theme would be defined as "an argument that undergoes a change of state" (1992: 64). In addition, following Fellbaum and Zribi-Hertz (1989), Fagan points out at some of the cases in which the Affectedness Constraint fails to account for certain situations crosslinguistically. For instance, English middles differ from French ones in that "French middles are not subject to the affectedness constraint" (1992: 65). Therefore, French middles can occur with *verbs of*

cognition and perception,[66] whereas English cannot, as illustrated in examples (37) and (38), respectively:

> (37)   *Ce poème se comprend facilment* (*This poem understands easily).
>
> (38)   *La Tour Eiffel se voir facilment de ma fenêtre* ('*The Eiffel Tower sees easily from my window'). (Fagan, 1992: 65)

Fagan (1992) also points at the empirically demonstrated violations of the Affectedness Constraint, but like Ackema and Schoorlemmer (1994), she also finds no satisfactory answer to this inquiry. The author (1992: 65) argues that this condition fails to account for the cases of predicates like 'read' and 'photograph' in English. That is, English middles incorporating these predicates are grammatically correct despite the presence of non-affected Subjects.

For this reason, scholars belonging to the Lexical-Constructional Model as well as other functional-cognitive scholars like Heyvaert (2003) and Davidse and Heyvaert (2007: 44; 2003: 63) advocate for the abandonment of the Affectedness constraint "in view of counterexamples (…) in which the subject entity is not in any way changed or affected by the action [denoted by the verb]" (Davidse and Heyvaert, 2007: 44). Therefore, other-than-Patient entities seem to be allowed in the middle construction. As Cortés-Rodríguez and Mairal Usón write, "the scope of the middle alternation is wider than that of the causative/inchoative with regard to candidate verb classes. This correlates logically with a wider spectrum of type of thematic roles for the subject arguments in middles" (Cortés-Rodríguez and Mairal Usón, 2013: 232; see also Marín Arrese, 2011: 10 and 12).

In addition, Heyvaert (2003) and Davidse and Heyvaert (2007) reinforce their point of view by explaining that the transitive constraint is also invalidated not only because non-affected entities can become middle Subjects, but also because some intransitive uses of verbs are allowed in the construction. Basically, these intransitive verbs are accompanied by non-prototypical middle Subjects belonging to the classes of Instruments or Locations, as detailed in Section 2.3.2.

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[66] However, as attested in Yoshimura (1998: 131), the cognition verb 'acquire' is middable when the appropriate contextual information is supplied, as shown in '*French acquires more rapidly than Esperanto when children are under six*'.

Interestingly, given that the Affectedness Constraint seems to be inconclusive regarding the contrast between the verbs 'buy' and 'sell' in terms of middle formation,[67] Fagan turns to Van Oosten's (1977, 1986) semantic notion of *responsibility* in order to account for this issue (see also Lakoff, 1977). According to Van Oosten, the middle Subject is defined as the "energy source of the action" (1986: 85), being able to "bring about the action of the predicate *independently*" (1986: 93; emphasis added). Therefore, the responsibility of the middle Subject follows from its inherent properties, which Van Oosten relates to the linguistic *raison d'être* of the middle construction. Similarly, Lakoff claims that "the point of using the patient-subject construction is to say that properties of the patient are more responsible for what happens than the agent is" (1977: 248).

Like Fagan, other authors have also resorted to Lakoff's (1977) and Van Oosten's (1977, 1986) semantic notion of the responsibility of the middle Subject due to the possession of certain inherent properties as the main criterion for middlehood (*cf.* Erades, 1950: 36; O'Grady, 1980: 62; Hale and Keyser, 1986: 617; Rosta, 1995: 132; Lemmens, 1998: 78; Iwata, 1999: 529; Cortés-Rodríguez and Mairal Usón, 2013: 233). Some scholars also refer to this notion of responsibility by applying different nomenclatures. For instance, Ryder (1991: 309) uses the term 'agentive patient', whereas Kemmer employs the concept of "the Initiator status of the Patient" (1993: 147). Rosta also refers to this same issue when commenting on the sentence '*The book read quickly/easily*'. As the author puts it,

> (the fact) that the reader could read the book at all is most likely contingent on properties of the reader, such as literacy, but that reading was quick or easy is relatively more likely to be contingent on properties of the book, such as clarity and liveliness of style. (Rosta, 1995: 132)

However, as Davidse and Heyvaert (2007: 52) claim, Van Oosten's notion of the responsibility of the middle Subject is untenable since "[a]n agentive reading of the subject results in semantic incongruity". That is, this notion of responsibility confers an autonomous-like nature to the middle Subject which is comparable to that of ergative intransitive structures, where no implicit Agent occurs. Therefore, a refinement of Van Oosten's notion of responsibility is needed. As the authors put it,

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[67] Whereas the verb 'sell' can undergo the middle formation, the predicate 'buy' cannot. This situation cannot be satisfactorily explained in terms of the Affectedness Constraint requirement (see also O'Grady, 1980: 66). For further information on this issue, see sections 2.3.3 and 3.1.3.3.

approaches attributing agentivity to the middle subject suffer in different ways and in varying degrees from an 'ergative fallacy'. There are [some] fundamental problems with analyses that reduce middles in some way to ergative intransitives. All these problems are due, in our opinion, to a confusion of levels and to attempts at making generalizations about the middle at the wrong level, viz. *the representational rather than the interpersonal level*. (Davidse and Heyvaert, 2007: 52; emphasis added)

In other words, the semantic claim that certain inherent properties of the middle Subject are responsible for the carrying out of the action denoted by the predicate is based on the "*representational* level of causality and event instigation" (Davidse and Heyvaert, 2007: 53). Instead, a refinement of the notion of responsibility based on the *interpersonal* level of analysis of the construction is favoured in this dissertation.

In this respect, Davidse and Heyvaert (2007) rely on Talmy's (1985, 2000) semantic category of force dynamics to explore the grammatical category of modals, particularly pointing at the 'letting' (or 'hindering') modal value of the middle construction.[68] As the authors write,

the finite in middle constructions construe a modal perspective on the representational relations between the process, its participants and possible circumstances. This modal perspective, while being of the 'dynamic' type of modality that also includes ability and volition, is specific to the middle and will be characterized in terms of Talmy's (2000) force dynamic relation of 'letting' and 'hindering'. (Davidse and Heyvaert, 2007: 54)

By focusing on the force dynamic relations of 'letting' and 'hindering', Davidse and Heyvaert overcome traditional approaches to modality and successfully "capture the specific semantic value of the finite in its relation to subject and predication in middle constructions" (2007: 56). Basically, those traditional approaches to modality confer the 'ability/possibility' modal value to the middle construction by means of paraphrases with the 'can + be V-ed' structure (*cf.* Fellbaum, 1985; Fagan, 1992; Massam, 1992; Cortés-

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[68] Interestingly, Soares da Silva (2007: 171) proposes the idea that the concept of 'letting' needs to be understood as a 'complex conceptual category', rather than as a 'semantic primitive' or an 'unanalyzable concept'. The author (2007: 173) analyses some aspects of the conceptualization of *verbs of letting* within the framework of cognitive semantics, and elaborates a semantic typology that differentiates the following letting values: not to prevent (let_1), to allow/to permit (let_2), and to let go/to release (let_3). The first sense of letting ('not to prevent') refers to an action that occurs due to the passive attitude of an Agentive Subject that "has done nothing to prevent an already existing or ongoing event" (2007: 172), as illustrated in '*John let the chicken burn*'. On the other hand, the second and third senses of letting ('to allow/to permit' and 'to let go/to release', respectively) involve Agentive Subject referents that take on active attitudes. That is, the Subject in these cases "has done something not to prevent (and thus positively allow) the object from following its intrinsic tendency" (2007: 172).

Rodríguez and Mairal Usón, 2013: 233; among others), as shown in the middle instantiated in (39) and its paraphrase in (40) below:

(39)   [about a kind of siding] *It nails easily. It cuts easily.*

(40)   *It can be nailed easily. It can be cut easily.* (Fagan, 1992: 54)

According to Davidse and Heyvaert, the '*can* + passive predicator' paraphrase "changes the syntactic structure of the middle and does not work for all subtypes" (2007: 54). Firstly, the passive predicator "changes the structure of the whole predication in comparison with that of middle constructions" (2007: 54) because it allows the syntactic projection of *by*-phrases (which are generally ungrammatical in middles), as shown in (41) below.[69] In addition, it prevents the incorporation of a Direct Object or a Subject-oriented adverbial, as respectively shown in (42) – (43) below:

(41)   *That siding nails easily :: That siding can be nailed easily by anyone who tries.*

(42)   *This wood carves beautiful toys :: *This wood can be carved beautiful toys.*

(43)   *Sheila seduces willingly :: *Sheila can be seduced willingly.* (Davidse and Heyvaert, 2007: 55)

Secondly, given that the '*can* + be V-ed' paraphrase includes a passive predicator, "this paraphrase is restricted to transitive verbs" (Davidse and Heyvaert, 2007: 54); thus, it does not work for the less prototypical cases of middles incorporating an intransitive use of a verb and a Subject entity fulfilling the role of either Instrument or Locative.[70]

In fact, even though the '*can* + passive predicator' structure can foreground the inherent positive properties of the patientive Subject entity (*cf.* Ehrmanm, 1966: 14), it is "the ability of the agonist to carry out the action" which is being judged. On the contrary,

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[69] As explained in Section 2.3.1.2, the middle construction requires an *implicit* Agent. Therefore, the syntactic projection of the Agonist/Agent by means of a passival *by*-phrase is incompatible with the notion of middlehood. This is because the modal 'can' of ability is intrinsically 'agent-oriented' (Halliday, 1970: 339) and it "ascribes the ability to execute the process designated by the lexical verb to the agent irrespective of whether the agent is construed as subject in an active clause or as 'by-adjunct' in a passive clause" (Davidse and Heyvaert, 2007: 58).

[70] Middles with Instrument and Location Subject entities are examined in Section 2.3.2.

the middle relies on "the subject's letting modality" instead. (Davidse and Heyvaert, 2007: 59).

Therefore, if a paraphrase changes the syntactic features of the original, "it cannot be viewed as a systematic alternate that makes the semantics of the original construction more explicit" (Davidse and Heyvaert, 2007: 55). Once the invalidity of the traditional approaches to modality for the account of middles has been demonstrated, the 'letting' and 'hindering' modal values seem to be more appropriate in this respect. Accordingly, Davidse and Heyvaert explore "the semantic components that are specific to the letting/hindering relation in middles, (…) that is, in what way the letting modality involves a mix of active and passive" (2007: 59). As the authors write,

> [f]irstly, the 'letting' relation has a PASSIVE aspect in that the subject/antagonist is always lower on the semantic role hierarchy than the agentive agonist: it is either the patient targeted by the agent, the location on which the agent moves or is positioned, or the instrument used by the agent. Therefore, the letting role of the subject entity can be understood as one of 'lending itself to' the agonist's action. This adds what is in broad sense *a semantically 'passive' feature to the relation between subject and predication*. (Davidse and Heyvaert, 2007: 59-60; emphasis added)

Such 'semantically passive' feature which relates the letting-Subject/Antagonist and the Agent/Agonist in the middle structure does not entail a syntactic realization, as the one found in passives with the *by*-phrase adjunct.

Secondly, the *active* aspect of the 'letting' relation relies on "the fact that contextually invoked properties of the subject entity are presented as positively conducive or as actively barring the action envisaged" (Davidse and Heyvaert, 2007: 61; see also Heyvaert, 2003: 142; Davidse and Heyvaert, 2003). Therefore, middles with positive polarity introduce a Subject entity whose inherent properties are contextually invoked as being assessed as positively conducive to the action in the way specified by the adjunct. Besides, middles with negative polarity (either with or without overt modal auxiliary)[71] present a Subject entity whose inherent features are contextually invoked as being assessed as not conducive to (*i.e.*, as hindering) the action. Examples of middles with

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[71] The cases presented as hindering middles occurring with overt modal negative polarity in Davidse and Heyvaert (2007: 64) involve *won't*-structures and *wouldn't*-structures. By contrast, hindering middles with non-overt modal negative polarity refer to *don't/doesn't*-structures.

positive and negative polarity (with and without overt modal auxiliary) are shown respectively in (44) – (46) below:

(44)   *Mary Shelley had learned 'to write with her ears', so <u>the novel reads well</u> from beginning to end.*

(45)   *It's also a way to convert any other PDF you find so you can carry it around with you on your tablet or smartphone. Because <u>PDF files don't read well</u> on these devices, particularly when you have a small screen.*

(46)   *If you are excessive with your keywords, <u>your web page will not read well</u> and the search engines may penalize you.* (enTenTen13 corpus, Concordance section, Sketch Engine)

The fact that such 'contextually invoked' or 'inherent properties' of middle Subjects are presented as conducive to the action encompasses the idea that the non-agentive middle entity instantiates a *subjective construal* in which *the implied speaker assesses these features*. Therefore, the semantic notion of the 'responsibility' of the middle Subject (understood in the sense of Van Oosten (1986) as attributing an agentive or autonomous nature to the middle Subject, hence equating the middle and the ergative) is redefined by Davidse and Heyvaert (2007) in terms of a process of *subjectification* (*cf.* Traugott, 1989; Langacker, 1990).[72] In other words, it is *the implied speaker who assesses the conduciveness of the foregrounded Antagonist* to the action. The authors (2007: 63) explain their proposal via the merging of these functional and cognitive postulates: (i) the Hallidayan (1985) *interpersonal* characterization of the function of the Subject; and (ii) the Langackarian (1991b) view that the semantic and cognitive value of the Subject is inherently *subjectively construed* as the foregrounded entity of the utterance.

As Halliday writes, the Subject entity is the element being picked out by the speaker as "the one on which the validity of the proposition is made to rest" (1985: 76). That is, the Subject is "made rhetorically responsible by the speaker for the truth or the

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[72] Davidse and Heyvaert propose that the "interpersonal organization of the middle construction can be interpreted as the result of the subjectification in the sense of Traugott (1989) of the ergative intransitive" (2007: 77). That is, the middle is linked to the ergative structure via a process of subjectification defined as "a shift from the description of a verifiable state of affairs to a *subjective* statement of dynamic modality" (2007: 73). This dynamic modality is the 'letting' modal value of the middle construction. Therefore, this process of subjectification allows this reanalysis: "[t]he subject's agentive-patientive relation to the lexical verb in the ergative intransitive is replaced by *the subject's conducive relation to the modal finite in the middle*" (2007: 73; emphasis added).

persiveness of the proposition" (Davidse and Heyvaert, 2007: 63). In this way, the Subject function is 'inherently subjectively construed' in the sense of Langacker (1991b: 321) since it involves the choice of a given entity in order to determine the truth of the proposition, thus conferring *focal prominence* on it. Therefore, "the middle subject is foregrounded by the speaker on the basis of *subjective evaluation of its properties*" (2007: 73; emphasis added). As Davidse and Heyvaert clarify,

> [b]ecause agents are objectively responsible for the action described, rhetorical responsibility for the validity of the proposition can be naturally rested on them. With non-agentive entities, subject selection may be motivated by the speaker's subjective assessment of that entity, or it may simply be a matter of speaker choice to focus on that entity in representing the situation. (Davidse and Heyvaert, 2007: 63)

Accordingly, in considering the modal 'letting' force of the middle construction, the following semantic generalization can be formulated: the relation between the non-agentive Subject and the modal finite entails that the implied speaker assesses the contextually invoked properties of the non-agentive Subject as being conducive (or not conducive) to the Agonist's action as specified by the adjunct.[73] As Davidse and Heyvaert put it, "[b]y locating the letting relation and the conduciveness of the subject in the interpersonal, modal, layer of the utterance, we avoid the problems incurred by a characterization of the middle such as Van Oosten's (1986)" (Davidse and Heyvaert, 2007: 65).

Summarising, given that the Affectedness Constraint has been empirically demonstrated to be an invalid generalization in terms of middle formation, in this dissertation, such criterion is abandoned in favour of a lexical-semantic and cognitive exploration of the nature of the middle Subject. Therefore, a distinction between Patient and Enabler entities is proposed, depending on the type of verb with which they occur: Patients are related to ergative-like verbs (given their affectedness), whereas Enabler entities occur with action-oriented verbs (due to their lack of affectedness). In both cases, grammatical middles (including metonymic extensions of less prototypical cases) are

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[73] As explained in Section 2.3.2, the schema subsuming the semantics of the middle construction is the following: [X (by virtue of some property P) IS SUBJECTIVELY ASSESSED BY SPEAKER AS BEING CONDUCIVE TO ACT]. This semantic schema is a reformulation of Yoshimura's (1998: 118): [X (by virtue of some property P) ENABLES ACT]. The reformulation proposed in this dissertation aims at solving the 'ergative fallacy' implied in Yoshimura's schema.

obtained.[74] The common feature of these two types of middle Subjects is that they involve the assessment of the speaker on the inherent properties of the Subject entity as being conducive to (by letting or hindering) the carrying out of the action denoted by the predicate, even though a defocused and implied Agent is evidently the one who ultimately executes the action.

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[74] See Section 2.3.2 for a detailed examination on the case of less prototypical middles, understood as metonymic extensions.

2.3.1.2. The role of the implicit Agent

In the linguistic literature on middle formation, it has been generally accepted that "an implicit argument is a defining characteristic of middles" (Iwata, 1999: 537; *contra* Massam, 1992). Such implicit participant is the Agent. However, there has been some controversy regarding the nature of the Agent participant either as a *deleted* or as a syntactically *suppressed* but semantically recoverable entity.[75] Agent-deletion approaches are those particularly advocating a derivational operation by which a θ-role is eliminated (*i.e.*, the external argument).[76] On the other hand, the supporters of the second stance generally interpret the implicit Agent of the middle structure as a generic and arbitrary participant.[77]

Most of these approaches have attempted to differentiate the middle and the ergative structures by means of two diagnostic tests which would prove that an implicit Agent argument is a requirement of middles but not of ergatives: (i) the 'imperative' test, and (ii) the 'all by itself' test.[78] According to the first one, the ergative unlike the middle

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[75] According to Grimshaw, implicit arguments are defined as "[s]uppressed positions [which] are represented in the argument structure, but are not available for purposes of theta-marking" (1990: 109). Therefore, as the author explains, an argument is suppressed when it can be both syntactically and semantically present, like the *by*-phrase implicit Agent of the passive structure. Consequently, the Agent participant of the middle construction is not considered a suppressed argument position, as Grimshaw explicitly states: "[n]either inchoatives nor middles have suppressed argument positions – each simply lacks the agent position that the corresponding transitive has" (1990: 136). However, as Iwata clarifies, "Grimshaw's a-structure fails to differentiate between ergatives and middles" (1999: 540). In this dissertation, the 'suppressed' status of the middle Agent is understood in the sense of Iwata (1999), not in the sense of Grimshaw (1990), as detailed hereunder.

[76] See Keyser and Roeper (1984) and Hale and Keyser (2002). Particularly, as explained in previous sections, Keyser and Roeper propose that the middle construction in Romance languages incorporates a clitic pronoun ('si' in Italian, 'se' in Spanish, etc.) which "absorbs objective case and carries the subject thematic function of agent" (1984: 406). However, in English there is not an explicit morphological marker like this in the middle structure, although the figure of the Agent is implicit at some level of representation. Thus, the authors propose that "English has an abstract 'si' clitic that absorbs case and the agent theme, but it is inexpressible" (1984: 406). By contrast, functional-cognitive analyses like Davidse and Heyvaert's (2007: 75) demonstrate that the reflexive form found in both the middle and the ergative structures of Romance languages is replaced in the English middle with a process of subjectification by which the relation between the Subject and the finite reflects a modal assessment of conduciveness, as detailed in the previous section.

[77] See Roberts (1987), Hoekstra and Roberts (1993), Fagan (1992), Ackema and Schoorlemmer (1994), Levin (1993), Marlej (2004), Langacker (2008), among others.

[78] See Keyser and Roeper (1984), Fagan (1992), Iwata (1999), among others. In addition, other names also refer to this same test to differentiate middles and ergatives, like the 'on its own' test (Hale and Keyser,

construction can undergo the imperative form, as respectively shown in examples (47) and (48) below. On the other hand, the 'all by itself' test reinforces this idea of the implicit Agent in the middle since the phrase 'all by itself' can be incorporated into the ergative structure, producing grammatically correct instances, whereas this is not the case of the middle construction, as respectively shown in examples (49) and (50) below:

(47)   *Sink, boat!* (Keyser and Roeper, 1984: 384)

(48)   **Read easily, book!* (Fellbaum and Zribi-Hertz, 1989: 19)

(49)   *The boat sank all by itself*. (Keyser and Roeper, 1984: 405)

(50)   **Bureaucrats bribe easily all by themselves*. (Keyser and Roeper, 1984: 405)

Basically, the second diagnostic test demonstrates that the incorporation of the reflexive structure 'all by itself', meaning 'totally without external aid', is only possible in the case of ergatives because of their lack of any implicit Agent argument (although the ergative event cannot occur without a *cause*). In contrast, the invalidity of the 'all by itself' phrase in the middle construction points at the incompatibility of this grammatical structure and the notion of agentlessness. Thus, in the middle construction, the presence of an implied agentive argument is assumed at some level of representation, whereas such an argument is totally absent in the ergative structure.[79]

In the linguistic literature, it has been often proposed that a way of licensing a non-projected argument is by interpreting it as arbitrary or generic in nature.[80] From this perspective, the genericity of middles is seen as derived from the so-called 'generic quantification over an implied argument' phenomenon (Fagan, 1992: 7; Fellbaum, 1985). Therefore, the non-projected Agent participant of the middle construction would be semantically recoverable due to its arbitrary status, being paraphrased as 'people in general' (*cf*. Fagan, 1992: 7; Fellbaum, 1985) or with the indefinite pronoun 'one'

2002), the 'self-originated' test (O'Grady, 1980), or the 'by-self' test (Cortés-Rodríguez and Mairal Usón, 2013: 231).

[79] However, as Iwata clarifies, "while middles are incompatible with 'all by itself', ergatives can be so, too" (1999: 548). For instance, in the utterance '*I threw the plate against the wall, and it broke*', the ergative structure including the verb 'break' is also incompatible with the 'all by itself' phrase, given that "[h]ere 'break' denotes only the event of the plate breaking, but clearly the agent in the preceding clause brought about that event" (1999: 547). Therefore, the reflexive structure 'all by itself' is not a valid generalizing tool to distinguish middles from ergatives when discourse-pragmatic factors are involved.

[80] See Fellbaum (1985), Roberts (1987), Fagan (1992), Levin (1993), Hoekstra and Roberts (1993), Ackema and Schoorlemmer (1994), Marlej (2004), among others.

(Roberts, 1987: 2; Hoekstra and Roberts, 1993: 187). These paraphrases are accompanied with an epistemic modal value of ability/possibility (*cf*. Fagan, 1992: 54),[81] as shown in the middle instantiated in (51) and its paraphrase in (52) below:

(51) *The book reads easily, and has no typos*. (enTenTen13 corpus, Concordance section, Sketch Engine)

(52) *People in general/One can read this book easily* (Own elaboration).

The indefinite pronoun 'one', which Hoekstra and Roberts (1993: 187) define as "an overt, non-clitic,[82] quasi-universal arbitrary pronominal", is characterised as follows: (i) it is incompatible with specific time reference (*cf*. Levin, 1993: 26), hence, it can appear in contexts which suspend the specificity of the time reference (*i.e.*, it is frequently found in non-eventive situations); and (ii) it is *compatible with generic time reference*, since it is coreferential with an individuative type of reference. Consequently, such features turn middle paraphrases incorporating this indefinite pronoun into the most accurate way to capture the nature of the middle construction in its traditional view. However, as detailed in the following paragraphs, scholars like Iwata (1999) question the validity of the arbitrary nature of the implicit Agent as a generalizing rule for middlehood.

In opposition to the idea of the deletion of the Agent θ-role in the middle construction, Fagan argues that the middle structure expresses a generic and non-eventive meaning, therefore, the middle structure is simply "another example of this general process of *genericization*" (1992: 161; emphasis added). Accordingly, such lexical process of genericization would serve to assign "a generic interpretation to a θ-role that is subsequently left unrealized" (1992: 161).

This is basically what Rizzi (1986) refers to with his notion of 'saturation' of a θ-role, a process that occurs in both the syntax and the lexicon. As Rizzi explains, a θ-role becomes saturated "when it is associated with some referential content – that is, when we can understand 'who does what' in the situation referred to" (1986: 508). A saturated argument is assigned the feature [+*arb*], which stands for the properties of having an

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[81] However, as claimed by Davidse and Heyvaert (2007), the middle construction does not rely on traditional modal values like ability/possibility, but on Talmy's (2000) force dynamic relations of 'letting' and 'hindering', as explained in the previous section, 2.3.1.1.

[82] Keyser and Roeper propose that "English has an abstract 'si' clitic that absorbs case and the agent theme, but it is inexpressible" (1984: 406). In addition, Hoekstra and Roberts (1993) assume that "the logical subject of an English middle and non-argumental impersonal 'si' are the same element, an element which has an overt counterpart in English *one*" (1993: 187; emphasis in original).

arbitrary and *generic* interpretation. Fagan incorporates this notion of 'saturation' to her analysis of the middle structure in this way: the Agent or external argument becomes lexically saturated and it is thus assigned the feature [+*arb*]. Consequently, as Fagan writes,

> [i]f a θ-role is lexically saturated, it will never be projected in the syntax. It will be understood even though it is not associated with an overt element because it is still part of the lexical meaning of an item. [Therefore,] (…) what is typically the agent θ-role in middles is interpreted generically but not realized in the syntax. (Fagan, 1992: 162)

In this respect, Cortés-Rodríguez and Mairal Usón write that "middles should not be interpreted as events modified by a generic quantifying operator (…). In fact, 'genericity' in middles seems to be more closely related with the absence of a specific effector" (2013: 228).[83] The authors agree with Fagan's (1992) genericization process by which the Agent is assigned an arbitrary interpretation leading to a generic reading to the lexical verb of the middle construction.

In a similar fashion, Roberts (1987) relates the implicit nature of the middle Agent to the notion of the '*chômeur* θ-role' from Relational Grammar (1987: 188) in these terms: "a θ-role becomes a *chômeur* when some lexical rule changes its realization *without deleting it*" (Roberts, 1987: 188; emphasis added). That is to say, the Agent of the middle structure, understood as a *chômeur* argument, would be syntactically absent, though still semantically relevant.[84] In this regard, Cortés-Rodríguez and Mairal Usón comment that "the effector is not expletivized, but simply left as syntactically 'inert'. This does not mean that it is not part of the semantic structure" (2013: 232).

In order to demonstrate that the Agent argument is present at some level of representation in the middle construction, scholars like Hoekstra and Roberts (1993) propose the idea that the implicit Experiencer argument of the adverb necessarily coincides with the implicit Agent. Consider example (53) below in this regard:

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[83] The term 'effector' is used in Role and Reference Grammar to designate the semantic role of the Agent participant.

[84] However, Iwata (1999: 542-543) considers that the *chômeur* argument is only possible in the passive but not in the middle structure, given that the author differentiates between those implicit arguments which are 'obligatorily' absent in the syntax (like the Agent in the middle structure) and those which can be projected by a prepositional phrase (like the *by*-phrase agentive structure in the passive).

(53)   [about a type of fabric made from fibers of the bamboo plant] *Bamboo is very durable and strong and can look and drape like silk. <u>This fabric washes nicely by hand</u>*. (enTenTen13, Concordance section, Sketch Engine)

Example (53) could be paraphrased as '*it is nice for us that we wash the fabric by hand*'. Therefore, in the middle instantiated in (53), the Agent argument "is construed as identical with the Experiencer argument of the Adverb *nicely*" (Hoekstra and Roberts, 1993: 186).

However, Iwata (1999) takes a further step in the characterization of the implicit Agent of the middle construction in the case of less prototypical or marginal middles. According to the author, "even middles lacking genericity and modality involve an implicit argument" (Iwata, 1999: 537). This implies that the [+*arb*] feature traditionally assumed for the middle agentive participant is not a defining characteristic of the implied Agent. Therefore, specific Agents can be incorporated into the middle structure without preventing its non-eventive meaning. Consider example (54) below:

(54)   *The car handles smoothly when Sophy drives it*. (Iwata, 1999: 544)

In this example, the participant of the adverbial phrase, 'Sophy', is understood as the specific (rather than arbitrary) agentive participant who actualizes the driving activity, yet the handling of the car is interpreted as non-eventive. In other words, the speaker subjectively assesses the car in question as being handled smoothly every time Sophy drives it. Thus, Iwata's (1999) proposal challenges those approaches that derive the genericity of middles from the 'generic quantification over an implied argument' phenomenon (understood as '*people in general*'/ '*one*') (*contra* Fagan, 1992).

In addition, as Iwata puts it, "an implicit argument crucially figures in the interpretation of middles that appear in the progressive or in the past tense" (1999: 537), as illustrated in examples (55) – (57) below:

(55)   *Your car handles smoothly.*
(56)   *Our car is handling very well.*
(57)   *The car handled well and was quite comfortable.* (enTenTen13, Concordance section, Sketch Engine)

As can be observed from the interpretation of these examples, only (55) can denote an arbitrary Agent participant, whereas in (56) and (57), "an implicit argument with a specific value" (Iwata, 1999: 544) is needed. As Iwata writes,

> [i]n these cases, it cannot be non-specific 'people in general' who actually are handling or handled the car. Rather, a specific person, most likely the speaker, is engaged in the handling activity. (…) Thus, an implicit argument makes a significant contribution to the interpretation of a sentence when middles express a specific event. (Iwata, 1999: 538)

Iwata assumes, then, that the middle construction can allow the expression of a specific event; that is, the author interprets examples like those illustrated in (56) and (57) as eventive. This idea is largely contradicted in the linguistic literature, particularly in those works which catalogue as marginal cases of middles those occurring in the progressive or the past tense (*cf.* Wagner, 1977: 225-227; Fagan, 1992: 21; Marlej, 2004; among others). However, the perspective of this dissertation follows Iwata's stance, given that the analysis of certain discourse-pragmatic factors involving the construction can provide a clue to determine if the action denoted by the predicate has an eventive nature or not, or even if the interpretation might be ambiguous (see Section 2.3.3 for further analysis on the aspectual properties of verbs). Some of these discourse-pragmatic factors basically refer to the identification of the speaker within the context surrounding the construction. This issue is addressed in detail in Chapter 3.

Therefore, as Iwata explains, if the middle construction can allow the incorporation of specific Agents, the arbitrary feature traditionally assumed as a requirement for middlehood is invalidated as a generalizing rule. This idea is also consistent with the one followed in this dissertation.

Along the lines of Jackendoff (1987, 1990), Iwata (1999) proposes the existence of a conceptual layer of analysis which would enable the Agent participant to be syntactically absent while semantically relevant.[85] That is, this conceptual structure entails the 'suppressed' rather than 'deleted' state of the Agent in the middle construction (Iwata, 1999: 542). Thus, as Iwata writes, "[m]iddle formation is better handled at the level of *conceptual structure* than at the level of *argument structure*" (1999: 545). This

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[85] See also Ackema and Schoorlemmer (1994) and their notion of the Lexical Conceptual Structure (LCS), distinguishing between the action tier (entailing the roles of Actor and Patient), and the thematic tier (involving the thematic roles of Agent, Theme, and Goal).

view is based on Jackendoff's proposal that argument structure is "an abbreviation for the part of conceptual structure that is *visible* to the syntax" (1990: 48).

Similarly, this is precisely the type of analysis carried out in the Goldbergian Construction Grammar model, where 'argument' and 'participant' roles are distinguished. That is, the term 'argument role' would be linked to the syntactic level of representation, whereas the term 'participant role' would be connected to the semantic level of a construction (Goldberg, 1995: 43). Consider example (58) below in this regard:

(58)   *This machine cleans easily.* (Hundt, 2007: 56).

In this sentence, as Hundt explains, "a participant role of the verb 'clean' is not matched up with an argument role – the expression is therefore syntactically intransitive but semantically transitive (*i.e.*, it has an implicit agent participant role)". Therefore, "[m]ismatches between semantic and syntactic transitivity can be used to account for the fact that transitivity is a gradient phenomenon" (Hundt, 2007: 56).

Correspondingly, from a cognitive perspective, Langacker explains that, even though the role of the Agent and its identification in the middle construction are virtually irrelevant, this participant needs to be implied to a certain extent as being considered the 'actual or potential' Agent carrying out the action denoted. The author illustrates this idea with the well-known example illustrated in (59) below:

(59)   *The ice cream scoops out quite easily*. (Langacker, 1991b: 334)

As Langacker puts it, "we do not (…) envisage the ice cream wielding a scoop and lifting itself out of the container. And while the ease or difficulty of carrying out the action is attributed to inherent properties of the subject, *it can only be assessed as easy or hard in relation to the capability of an actual or potential agent*" (1991b: 334, emphasis added).

This thesis is thus consistent with Talmy's (2000) force dynamic relations of 'letting' and 'hindering' as presented by Davidse and Heyvaert (2007) in their characterization of the middle construction. As stated in the previous section, in attempting to characterize the middle as an *interpersonal* construction (rather than a representational one), Davidse and Heyvaert (2007) rely on Talmy's (2000) force dynamic theory to capture the semantic and cognitive nature of the middle construction in English. Therefore, the exertion of force encountered in the middle construction does

not follow the traditional modal value of 'ability/possibility' as generally argued in the literature, but it reflects a less prototypical modal value, namely that of 'letting' (or 'hindering'). That is, the speaker assesses the Subject entity as involving certain inherent properties that are conducive to (by letting or hindering) the carrying out of the action as specified by the adjunct.

Therefore, the ultimate responsible for the fulfilment of the action is the implicit Agent, the Agonist who gets backgrounded in terms of the "reverse assignment of salience" (Talmy, 2000: 422-423), whereas the Antagonist is foregrounded as the strongest opposing-force entity. The important idea derived from force dynamics is that the Agonist-Antagonist interaction with respect to force implies that, irrespective of the entity which is more salient and thus foregrounded in a given utterance, the exertion of force requires the constant and indisputable presence of all of the interrelated elements of a force dynamic pattern at some level of analysis. Therefore, the construal of the middle construction requires an explicit Antagonist/Subject and an implied Agonist/Agent which is semantically relevant at the level of the conceptual base of the predication (Davidse and Heyvaert, 2007: 73). As the authors write,

> [t]he [middle] subject is no longer agonist of the action but is construed as antagonist, and the letting force dynamics requires the predicate to invoke an agonist in its conceptual base. The conduciveness of an antagonist entity to an action can only be assessed with reference to an agonist carrying out that action. (Davidse and Heyvaert, 2007: 73)

2.3.2. Family-resemblance analysis of the middle construction

In a family-resemblance category, as the middle construction is, of crucial importance is "the notion of meaning relatedness; [since] it is namely relatedness of meaning which permits different meanings to get associated in the first place" (Taylor, 1995: 122). Additionally, in the case of the middle construction, the process of category extension is reached via metonymy, as detailed down below.

As argued in previous sections, the semantic role of the middle Subject can be either a Patient or an Enabler entity, depending on the nature of the verb and other contextual factors, thus producing either ergative-like or action-oriented structures. This section elaborates "an inheritance hierarchy of metonymically-motivated extensions" of these two types of middles (*cf.* Palma Gutiérrez, 2021b: 166), as shown in Figure 3 down below.

In the literature, some scholars have argued in favour of the inclusion of certain marginal types of middles as belonging to the Oblique-Subject type and contrasting with the canonical Patient-Subject of the middle structure. For example, Hoekstra and Roberts (1993: 197) and Ackema and Schoorlemmer (1994: 72) refer to Locatives and Experiencers as marginal types of middle Subjects. Dixon (1982: 153-154) and Van Oosten (1984: 129) mention Instruments and Locatives as Subject entities in the middle structure. Besides, O'Grady (1982: 65) and Hale and Keyser (2002: 37-38) explore the internal restrictions operating upon Experiencer-middle-Subjects occurring with psych verbs. Functional and/or functional-cognitive analyses to middle formation have also examined other-than-patientive Subjects in the middle. For instance, Davidse and Olivier (2008) analyse the role of the Experiencer speaker in middles with mental verbs;[86] whereas Yoshimura (1998) refers to Locative, Instrument and Experiencer-Subjects in middles. In Heyvaert (2003: 129-130), the sub-type of Means is included within the middle-Subject marginal class. For their part, scholars like Heyvaert (2003: 128-130) and Davidse and Heyvaert (2007: 42-50, 74-75) propose the idea that Locatives and

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[86] See Section 2.3.3 for a detailed analysis on this issue.

Instruments occur as middle Subjects in marginal structures with intransitive verbs (see also Marín Arrese, 2011: 12-13).

Nevertheless, this dissertation attempts to take a step further toward the cognitive mapping of the distribution of Oblique-Subjects in the middle construction, understood as "metonymically-motivated extensions within a high-level inheritance hierarchy" (*cf.* Palma Gutiérrez, 2021b: 168). To do so, as explained in Palma Gutiérrez (2021b: 168), "a family-resemblance constructional schema (based on the idea of the prototype effects of the construction)" is elaborated,[87] as shown in Figure 3 below:

MIDDLE PROTOTYPE CATEGORY

Prototypical action-oriented middles   **Prototypical ergative-like middles**

Lack of affectedness
Enabler Subject
Action-oriented verb

Affected entity
Patient Subject
Ergative-like verb

(*This car drives well*)   (*Glass breaks easily*)

Metonymically- motivated extensions
(Oblique-Subject middles)

Locative-Subject middles   **Experiencer-Subject middles**
(*The top lock is fishing well*)   (*Mary discourages easily*)

Means-Subject middles   **Agent-Instrument middles**
(*This music dances better than the other one*)   (*A virtuous knife cuts well*)

Circumstance-of-Instrument middles
(*The top-quality rods from Montague fish well*)[88]

Figure 3. A family-resemblance analysis of the middle construction[89]

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[87] Langacker (1991b) uses the term 'constructional schema' to refer to the Goldbergian notion of 'construction'.

[88] This example is adapted from Davidse and Heyvaert (2007: 39).

[89] Adapted from Palma Gutiérrez (2021b: 168).

By capturing linking generalizations with constructions, "the inheritance hierarchy allows us to capture the relevant generalizations while at the same time allowing for a limited number of lexicalized exceptions" (Goldberg, 1995: 117). Consequently, as stated in Palma Gutiérrez, "the middle construction can be thought of as consisting in a family of syntactically, semantically, and pragmatically related structures, thus, involving family-resemblance at a higher level" (2021b: 164; see also Goldberg, 1995: 4). The inheritance hierarchy shown in Figure 3 above confirms that "the lowest levels occur as metonymically-motivated extensions of superior or higher levels" (Palma Gutiérrez, 2021b: 168), as detailed hereunder. These metonymic extensions can be considered 'subpart inheritance links', as Goldberg (1995: 78) calls them. As the author puts it,

> [a] *subpart link* is posited when one construction is a *proper subpart* of another construction and exists independently. (…) The syntactic and semantic specifications of [the extension] are a subpart of the syntactic and semantic specifications of the [prototypical construction]. (Goldberg, 1995: 78, emphasis in original).

By means of the family-resemblance analysis shown in Figure 3 above, as Palma Gutiérrez states, "the middle construction can be analysed as a family of structures comprising two main sub-constructions which instantiate related but not identical meanings" (2021b: 170). These two main sub-constructions, *i.e.*, action-oriented and ergative-like patterns, involve "lack of necessary affectedness and total affectedness, respectively" (Palma Gutiérrez, 2021b: 170). Other sub-types of constructions (considered as metonymically-motivated extensions from the prototype within this family) are also found. Such extensions are Oblique-Subject middles: on the one hand, Experiencer-Subject and Agent-Instrument middles are extensions of prototypical ergative-like structures, whereas Setting-Subject middles (*i.e.*, Locative and Means-Subject middles) and Circumstance-of-Instrument-Subject middles are extensions of the action-oriented prototype.

Therefore, as explained in Palma Gutiérrez (2021b: 170), "the middle construction needs to be understood as a high-level conceptual configuration capable of *accommodating* (…) low-level structures" of the kind provided by the lexical predicates which are coerced into the construction (see also Ruiz de Mendoza and Gonzálvez, 2011: 192). In this regard, according to Barcelona, the term 'construction' is defined as "an abstraction or schematization of the formal and semantic commonalities ranging over a

number of 'usage events', or particular individual expressions" (Barcelona, 2009: 365). Accordingly, the middle prototype category is considered here as a *high-level schema* that comprises certain commonalities in the underlying syntactic, semantic, pragmatic, and cognitive patterns found in all the segments on the category, as illustrated in Figure 4 below. Even though all of the segments on the middle prototype category are comprised within these schemas, their status as either prototypical or peripheral/metonymically-motivated members is a matter of gradience and centrality. As Langacker explains,

> [a] prototype is a typical instance of a category, and other elements are assimilated to the category on the basis of their perceived resemblance to the prototype; there are degrees of membership based on degrees of similarity. A schema, by contrast, is an abstract characterization that is fully compatible with all the members of the category it defines (so membership is not a matter of degree); it is an integrated structure that embodies the commonality of its members, which are conceptions of greater specificity and detail that elaborate the schema in contrasting ways. (Langacker, 1987: 371)

In this respect, according to Langacker (1999), a schema *A* serves to embody the commonality among related experiences (like *A1*, *A2*, *A3*). A schema *A* is conventionalised to the extent that it gains the status of the prototype member within a category. A motivated extension from the prototype, *B* (understood as a peripheral member of the category), is possible as long as it implies some abstract commonality enabling the prototype *A* to be evoked and finally categorising the extension as *B*. This reflects, in fact, the notion of 'prototype effects' (*cf*. Taylor, 1995). The commonality found between *A* and *B* equates to a high-level schema, represented by *A'*, one which comprises both instances of the category *A* and its extension *B*.

Consider first Figure 4, which illustrates the high-level schemas which are common to all segments on the prototype category,[90] and then consider Figure 5, which shows the different elaborations of the schemas via metonymic extensions:

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[90] According to Taylor, "[t]he increasing abstractedness required of schematic representations suggests that schemas may only be accessible to more sophisticated, reflective language users. Possibly, one of the hallmarks of formal education is precisely that it encourages an individual to reflect consciously on the commonality of category members" (1995: 67-68).

> Syntactic schema: [NP$_1$ – VP – (Adv)]
>
> Semantic schema: [X (by virtue of some property P) Is SUBJECTIVELY ASSESSED BY THE SPEAKER AS BEING CONDUCIVE TO ACT]
>
> Pragmatic schema: 'Patient/Enabler-profiling and Agent-defocusing'
>
> Metonymic mapping: [(ACTUAL) PROCESS FOR (POTENTIAL) ACTION FOR SUBJECTIVELY ASSESSED RESULT]

Figure 4. Common underlying schemas in the middle construction

As shown in Figure 4 above, the fact that the segments on the middle spectrum (the unergative, the middle, and the ergative constructions) conform a continuum is considered with respect to the high-level schema under which the *syntactic commonality* of the three structures is reflected: the [N$_1$ – V] pattern,[91] the syntactic form assumed for intransitivization (Sakamoto, 2001: 92-93). Hence, this process of schematization possesses a categorizing function, as it captures "what is common to certain previous experiences" and therefore "it can be applied to any new experience exhibiting the same configuration" (Langacker, 2013a: 56-57). Certainly, this is essential in Cognitive Linguistics when dealing with language structure, as it is claimed that "all linguistic generalizations arise via schematization from more specific structures" (Langacker, 2008: 57). Consider the following examples in this regard:

(60)   [N$_1$ – V$_c$ – (Adv)].

(61)   *The vanilla sugar cookie recipe from Cookies and Brownies is a cookie standard – and heavy on the vanilla flavour. This is a fun, flexible cookie that cuts well, maintains its shape, and is great to decorate with all sort of things.* (enTenTen13 corpus, Concordance section, Sketch Engine)

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[91] Further extensions of this syntactic pattern are also possible. For example, a marginal case of an ergative-like middle (which is not examined in this dissertation) is what Goldberg (1995: 190) identifies as the 'intransitive resultative' construction (*e.g.*, *The metal hammers flat easily* [Goldberg, 1995: 184]). The intransitive resultative construction is an extension of the prototypical transitive resultative (*e.g.*, *He hammered the metal flat* [Goldberg, 1995: 182]). As Goldberg assures, "[i]ntransitive resultatives (*i.e.*, resultatives with ergative verbs) require a slightly different construction" (1995: 190), which is identified with the middle construction. The effective incorporation of a resultative element (*e.g.*, *flat*) within the scheme of the middle construction contributes to the addition of a distinctive syntactic and semantic factor of this type of structure, being thus considered as an extension of both the ergative-like middle construction as well as an extension of the transitive resultative construction.

(62)   *A virtuous knife cuts well.* (enTenTen13 corpus, Concordance section, Sketch Engine)

For example, a schematic structure like the one portrayed in (60) would embed or elaborate multiple instances of more specific structures, as those in (61) and (62). The schema in (60) implies the encoding of a nominal entity as Subject, followed by a verb of cutting and sometimes an adverbial. The potential elaborations of this schema, however, can present certain differences among them. Particularly, the Subject of (61) is a Patient, whereas the entity in (62) is an Instrument. Anyway, both structures instantiate cases of well-formed middle constructions. Section 3.1.3.2 elaborates further the distinction between these two types of middles.

Similarly, the high-level semantic schema [X (by virtue of some property P) IS SUBJECTIVELY ASSESSED BY SPEAKER AS BEING CONDUCIVE TO ACT] would also amount to the *A'* schemas appearing in Figure 4 above,[92] now reducing its scope to the notion of middlehood. Thus, such a high-level schema could instantiate both prototypical middle instances (both action-oriented and ergative-like ones) as well as peripheral members (*i.e.*, metonymic extensions). By means of this type of inheritance hierarchy (understood in the sense of Goldberg, 1995; see also Hundt, 2007: 62), the incorporation of metonymically-motivated extensions of middles is justified. This idea is also consistent with the notion of the so-called 'Extended Override Principle', which states that "if lexical and constructional features conflict, the feature specifications of the lexical element conform to those of the construction with which that lexical item is combined" (Cortés-Rodríguez and Mairal Usón, 2013: 227). See Goldberg, 1995: 59-61, in this regard.

In terms of the pragmatic commonality found across the different sub-types of middles, the Patient/Enabler-profiling and the Agent-defocusing feature is accused. Even in those cases in which the prototypical arbitrary Agent is replaced with a specified one (either by virtue of the contextual information surrounding the construction or for being syntactically expressed in the sense of Iwata, 1999: 544), the Agent participant is defocused. In those cases, which still capture the non-eventive nature of the prototypical middle, the defocusing of the Agent can be achieved by means of the position occupied

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[92] This semantic schema is a refinement of Yoshimura's [X (by virtue of some property P) ENABLES ACT] (1998: 118). The schema presented here aims at avoiding the 'ergative fallacy' involved in Yoshimura's (1998) idea and hence satisfactorily capturing the semantics of the middle construction and its different extensions.

by the specific Agent in the whole utterance, *i.e.,* at the end of the sentence. Accordingly, focal prominence is directed toward the non-agentive participant occurring in Subject position.

Finally, the metonymic mapping found in both action-oriented as well as ergative-like middles is subsumed under the formula [(ACTUAL) PROCESS FOR (POTENTIAL) ACTION FOR SUBJECTIVELY ASSESSED RESULT]. This cognitive process operating in the middle construction is the result of the reanalysis of previous works (*cf*. Cortés-Rodríguez and Mairal Usón, 2013; Kövecses and Radden, 1998; Guerrero Medina, 2013; Panther and Thornburg, 2000; and Ruiz de Mendoza, 2002: 141). The part of the schema represented by the formula 'PROCESS FOR ACTION FOR (ASSESSED) RESULT' is found in Cortés-Rodríguez and Mairal Usón, 2013; whereas the part of the formula regarding the 'ACTUALITY FOR POTENTIALITY' schema is analysed in Kövecses and Radden (1998) and Guerrero Medina (2013). The reanalysis of both parts of the metonymic schema as presented here is explained as follows:

Firstly, the high-level metonymic schema proposed here,[93] although slightly modified, is based on the analysis presented in Cortés-Rodríguez and Mairal Usón (2013), which basically aims at the "unification of predicates and middle structures" (2013: 222; see also Ruiz de Mendoza and Mairal Usón, 2007; Ruiz de Mendoza and Pérez Hernández, 2001). According to the authors, the cognitive mechanism in question is the double metonymy 'PROCESS FOR ACTION FOR (ASSESSED) RESULT' (see also Ruiz de Mendoza and Mairal Usón, 2006).[94] This high-level metonymic process explains that "an action is seen as a process that is assessed in terms of the viability of the intended result"

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[93] The notion of high-level metonymy in Kövecses and Radden (1998: 39) refers to "a cognitive process in which one conceptual entity, the vehicle [currently known as source] provides mental access to another conceptual entity, the target, within the same domain or ICM" (see also Taylor, 1995: 123-124). The term ICM stands for Idealized Cognitive Model and it is understood as a domain in the Langackarian sense. However, Barcelona (2011: 48-49) explains that "metonymic sources and targets constitute 'domains' (or subdomains), rather than just 'entities' conceived in isolation", since both "the source and the target include at least the more relevant facets of speakers' encyclopedic knowledge about them". Therefore, a more refined definition of the notion of metonymy is provided by Barcelona (2011: 52): "Metonymy is an asymmetric mapping of a conceptual domain, the source, onto another domain, the target. Source and target are in the same functional domain and are linked by a pragmatic function, so that the target is mentally activated".

[94] The LCM does not recognise the existence of PART FOR PART metonymies (*contra* Barcelona, 2011: 12), and consequently, the metonymic mappings advocated by these scholars either involve domain expansion (*i.e.*, PART FOR WHOLE) or domain reduction (*i.e.*, WHOLE FOR PART). The rejection of PART FOR PART mental mappings in the LCM framework is compensated with instances of double metonymy.

(Cortés-Rodríguez and Mairal Usón, 2013: 222). As the authors (2013: 231) write, the fact that the middle structure refers to a process which is "coerced into a stative eventuality" can only be explained by means of the "double high-level metonymic clipping" mentioned above. In other words, "the double metonymy finds its correlate in the fact that English middles involve a double coercive process of detransitivization and aspectual conversion of eventive transitive predicates" (Cortés-Rodríguez and Mairal Usón 2013: 236).[95] Consider example (63) below in this regard:

(63)　　*This meat cuts easily*. (Cortés-Rodríguez and Mairal Usón, 2013: 231)

In this case, "an action ('*cutting meat*') is seen as a process ('*the meat cuts*') that is assessed in terms of the viability of the intended result ('*it is easy to cut the meat*')" (Cortés-Rodríguez and Mairal Usón, 2013: 231; emphasis in original).

Nevertheless, a subtle reanalysis of the metonymic schema proposed by Cortés-Rodríguez and Mairal Usón (2013) is advocated here. First, as further explained in Section 2.3.1, the middle construction involves an interpersonal level of interpretation related to the letting modal value of the construction (*cf*. Davidse and Heyvaert, 2007). Therefore, the representational levels occurring in the process of lexical-constructional subsumption are complemented now with the high-level metonymic schema presented by Cortés-Rodríguez and Mairal Usón (2013) in order to include an interpersonal component. Hence, Davidse and Heyvaert's (2007) 'subjective speaker-assessment component' would be added as illustrated in (64) below:

(64)　　[PROCESS FOR ACTION FOR *SUBJECTIVELY ASSESSED* RESULT]

Additionally, a second refinement of the metonymic schema provided by Cortés-Rodríguez and Mairal Usón (2013) is proposed in terms of the incorporation of Kövecses and Radden's (1998: 66) 'POTENTIALITY FOR ACTUALITY' schema. This second refinement is followed without modifications in the final formula defended in this dissertation. The incorporation of this part of the schema aims at highlighting the non-eventive and potential nature of the prototypical middle structure (see also Barcelona, 2008: 25-27; and Brdar, 2007: Ch. 7; and Ruiz de Mendoza and Otal Campo, 2002: 141).

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[95] This idea implies that Cortés-Rodríguez and Mairal Usón (and in general, the scholars of the Lexical-Constructional Model, LCM) overcome and refine the Goldbergian Principles of Semantic Coherence and Correspondence (*cf*. Goldberg, 1995, 2006) in terms of their notions of subsumption and coercion via metonymy.

Along the lines of Kövecses and Radden (1998), Guerrero Medina explains that the metonymic operation 'POTENTIALITY FOR ACTUALITY' instantiates "the cognitive principle OCCURRENT OVER NON OCCURRENT", which accounts for the fact that "an 'actual' (occurrent) source is used to activate a 'potential' (non-occurrent) target" (2013: 141). Following Kövecses and Radden (1998: 66), this schema would be interpreted with regards to the middle construction as follows: the non-occurrent potentiality denoted by the letting modal value or conduciveness of the middle predicate stands for the illocutionary force of the speech act (see also Panther and Thornburg, 1999: 335). Therefore, as mentioned above, the final metonymic schema advocated in this dissertation is instantiated in (65) below, subsuming the different cognitive mechanisms above-mentioned:

(65)   [(ACTUAL) PROCESS FOR (POTENTIAL) ACTION FOR SUBJECTIVELY ASSESSED RESULT]

Henceforth, for instance, the middle above illustrated as (63), '*This meat cuts easily*', would be analysed in terms of the metonymic schema presented in (66) in this way:

(66)   The source, an actual/occurrent ACTION ('*cutting meat*'), is used to activate the target, a potential/non-occurrent PROCESS ('*the meat cuts*'), that in turn is SUBJECTIVELY ASSESSED by the speaker in terms of the viability of the intended RESULT ('*it is easy to cut the meat*').[96]

Once the syntactic, semantic, pragmatic, and cognitive commonalities found in the middle schema/construction (as shown in Figure 4 above) have been examined, consider the distinctive features of the metonymic extensions within the inheritance hierarchy of middles, as illustrated in Figure 5 below:[97]

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[96] Note that this metonymic schema is applicable to every subtype of middle presented in Section 2.3.2 by including certain paraphrases or prepositional phrases. For instance, consider the *with-* paraphrase in the middle '*The top quality rods from Montague fish well*', whereby the analysis of the metonymic schema would be explained as follows: The source, an actual/occurrent action ('*fishing WITH top quality rods from Montague*'), is used to activate the target, a potential/non-occurrent process ('*someone fishes WITH the quality rods from Montague*'), that in turn is subjectively assessed by the speaker in terms of the viability of the intended result ('*it is easy to fish WITH top quality rods from Montague*').

[97] See Section 3.2 for a representation and examination of the middle structure within a functional-cognitive analysis which accommodates both the commonalities shown in Figure 4 and the individualised features of central members and their extensions.
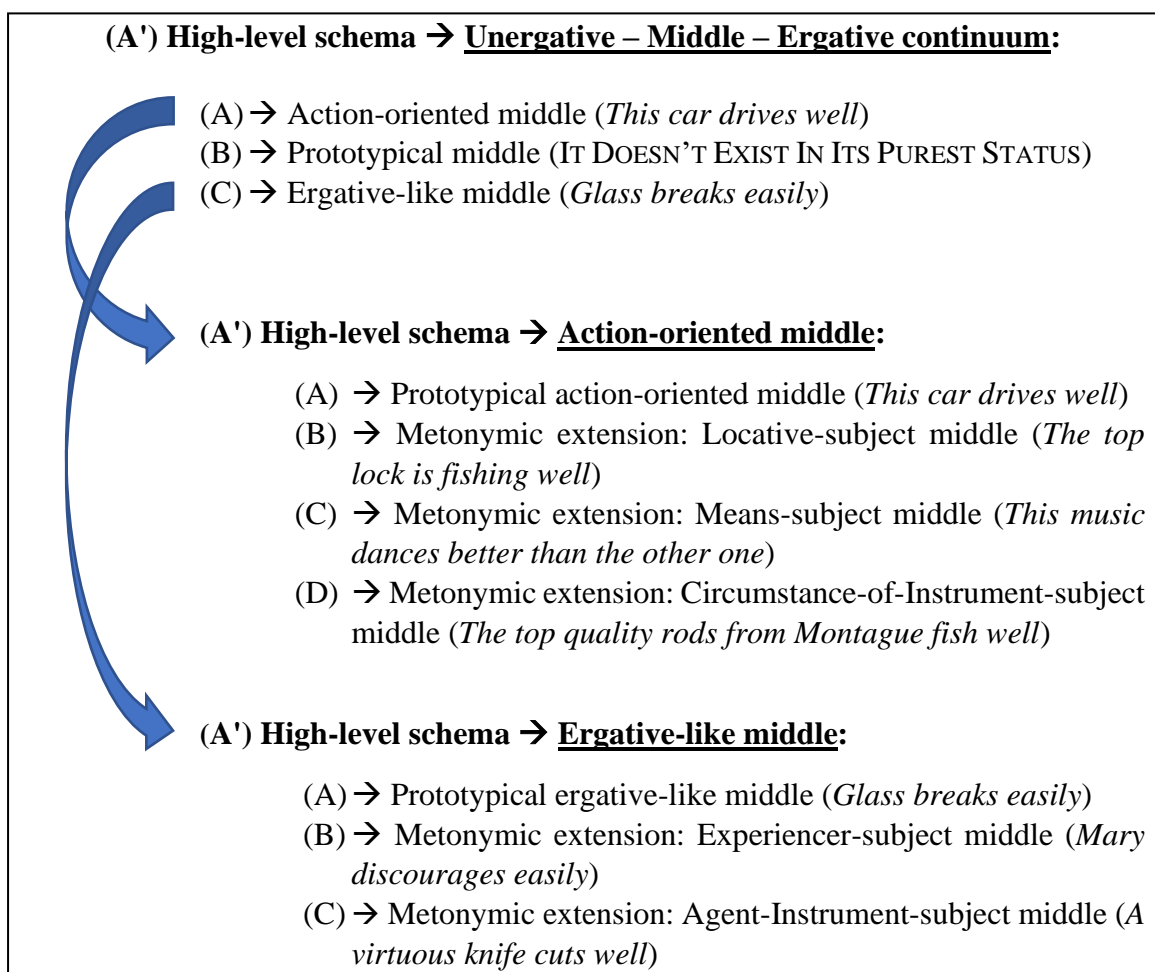
Figure 5. High-level schema of the middle construction and its extensions

Let us start with the analysis of Instrument middles. Along the lines of Nishimura's (1993: 490) classification of Instruments into 'circumstances of instrument' and 'inanimate agents of an instrumental kind',[98] and also partially following Davidse and Heyvaert's (2007: 49) analysis,[99] in this dissertation Instrument-Subject middles are

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[98] Agent-Instrument Subjects occurring in the middle construction are Patient-oriented, whereas Circumstance-of-Instrument Subjects in middles are Agent-oriented. This entails that, in terms of the canonical action chain, the formers appear with transitive predicates and the later with intransitive uses of verbs.

[99] What Davidse and Heyvaert (2007) analyse as 'Instrument' middle is here called 'Circumstance-of-Instrument' middle, an extension of the action-oriented middle. In addition, in this dissertation, another type of instrumental Subject is also examined: the Agent-Instrument type. This is located at the other side of the middle spectrum, belonging to the ergative-like type. Following Smith (1987: 103), Davidse and Heyvaert (2007) discard Agent-Instrument Subjects in middles in view of the ergative-like agency the authors attribute to this sub-type of construction (see also Schlesinger, 1989). However, in this dissertation, it is argued that such agentivity is metonymically subsumed under the conceptual interdependence between the vehicle (the Instrument in Subject position) and the target (the implied Agent acting by manipulating the instrument), as explained hereunder. In fact, this can be seen as one of the prototype effects of the construction.

classified as metonymic extensions of either the prototypical action-oriented or the ergative-like middle.[100] Therefore, Circumstance-of-Instrument middles (as (67) below) would be characterised for its occurrence with action-oriented verbs, thus containing an Enabler entity as Subject, and involving a Circumstance of Instrument. On the contrary, Agent-Instrument middles (as shown in (68) below) would be characterised for their occurrence with ergative-like verbs, but in this case, instead of containing a Patient, they contain a Subject entity which serves as intermediary regarding the implied Agent who ultimately provokes a change of state over an implied Patient:[101]

(67)   *The top-quality rods from Montague fish well*. (Adapted from Davidse and Heyvaert, 2007: 39)

(68)   *This saw cuts well and is simple to use*. (enTenTen13 corpus, Concordance section, Sketch Engine)

Even though both utterances include an Instrument as Subject (which can be paraphrased with a *with*-phrase), in example (68) the transitive verb 'cut' expresses an action that entails a change of state in the implied Patient (for instance, wood); whereas in example (67) the intransitive verb 'fish' expresses an action that does not entail any change because there is no Patient at all. This idea is reflected in the complete canonical action chains shown in (69) and (70) below, respectively corresponding to the middles illustrated in (67) and (68) above:

(69)   *I fished for tuna with a top-quality rod.*

(70)   *I cut some wood with this saw*. (Own elaboration)

In the case of (69), the intransitive nature of the predicate 'fish' requires a *for*-phrase to point at what is being fished. Therefore, in terms of force dynamic patterns, the implied Agonist in (67) above exerts force by using an Instrument. By contrast, the patientive participant 'wood' is syntactically projected in (70) but it is implied in (68). Hence, in the case of (68), in terms of force dynamics, the implied Agonist exerts force by using an Instrument and also affecting the implied Patient. In addition, consider

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[100] This idea is concomitant with Schlesinger's (1989) scale of agentivity to capture the nature of Instrument Subjects, although the author proposes the idea that Instruments in Subject position are Agents. Along the lines of Fillmore (1968: 22) and Langacker (2008), the opposite is defended here: Instrument Subjects are not Agents because of the conceptual interrelation occurring between them. Thus, the metonymic relation involving both entities precludes the elimination of the Agent participant, which is implied at the semantic level, as detailed down below.

[101] *Cf*. Hundt, 2007: 63.

example (71), showing another portion of the action chain of (68) and (70), with a different profiled participant:

(71)   *Wood cuts well with this saw.* (Own elaboration)

Example (71) is a prototypical ergative-like middle. Here, the patientive participant occurs in Subject position as it is directly affected by the cutting force exerted by the implied Agonist. Accordingly, example (68) above would represent the same force dynamic pattern but providing focal prominence to a different participant, *i.e.,* the Instrument which is used by the implied Agonist to exert force against the implied Patient. The difference between (68) and (71) is the metonymic relation existing between the Agent/Agonist and the Instrument used by the Agent/Agonist. In (68), the instrument in question, the 'saw', is metonymically related to the implied Agent by means of the metonymic schema 'INSTRUMENT FOR PERSON MANIPULATING THE INSTRUMENT'.

According to Langacker, "[a]n instrument is something used by the agent to affect another entity. The typical instrument is an inanimate object physically manipulated by the agent. Therefore, it is not an independent source of energy but an *intermediary in the transfer of force from agent to patient*" (2008: 356; emphasis added). This is precisely the type of instrumental value that the 'saw' in example (9) possesses: an 'intermediary in the transfer of force'.

Traditionally, the Agent-Instrument extension of the middle prototype presented here has tended to be interpreted as having an ambiguous reading between a middle and an ergative value. However, because of the prototype effects found in the middle construction and because this type of structures follows the syntactic, semantic and pragmatic high-level schemas previously illustrated in Figure 4, Agent-Instrument middles need to be considered members of the middle prototype category in their own right.

For example, Davidse and Heyvaert (2007) consider that Instrument-middles can only occur with intransitive verbs. However, as it is demonstrated here, Instrument-middles can also occur with ergative-like verbs. In addition, Heyvaert states that examples like (72) and (73) below have an ambiguous interpretation "between a middle and an ordinary active reading that profiles the agent-like involvement of the Instrument in the process" (2003: 130):

(72) *The brush paints well.*

(73) *The knife cuts well*. (Heyvaert, 2003: 130)

In the construal of Agent-Instrument middle Subjects like (68) above, a higher degree of causality is implied in the semantics of the verb, thus transferring such ergative-like force to the Instrumental Subject. However, as discussed in this section, a cognitive interpretation reveals that there is a conceptual linking between the Instrument and the Agent's action by manipulating the Instrument, which precludes the elimination of the Agent at the semantic level of interpretation. Then, this type of Instrument-Subject is not the prototypical Agent.

Therefore, Agent-Instrument middles also instantiate all the constructional characteristics of core middles: (i) the intrinsic features of the Subject entity are subjectively assessed by the speaker as being conducive to the carrying out of the action; (ii) there is an implied Agent who ultimately actualizes the action denoted by the verb; and (iii) the syntactic and the semantic schemas of the middle construction are concomitant with those found in the Agent-Instrument extension. The distinctive feature of this sub-type of middles is that, despite occurring in ergative-like structures, their Subject referents are not patientive.[102] Instead, they are considered metonymic intermediary instigators of the change-of-state action occurring onto the implied Patient. In those cases, the Subject entity is an Instrument which conceptually refers to the manipulation and force exerted by an implied Agent onto an implied Patient.

Regarding the other type of instrumental middle presented here, *i.e.,* the Circumstance-of-Instrument Subject, this is what Davidse and Heyvaert (2007) recognise as proper Instrument middles, as they occur with intransitive verbs, *i.e.,* in action-oriented structures. In the case of the 'top quality rods' in example (67) above, they are seen as "instruments conducive to (…) successful fishing on the part of the agents using them" (Davidse and Heyvaert, 2007: 49).

Like Agent-Instrument middles, Circumstance-of-Instrument middles incorporate a Subject entity which is an instrument conceptually referring to the Agent's action by manipulating an instrument. As Davidse and Heyvaert write, "[c]ircumstances of

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[102] See also Palma Gutiérrez (forthcoming) for further information on machine translation issues regarding the middle construction, particularly, in the case of target languages like Spanish and other Romance languages in which the clitic 'se'/'si' may or may not be projected in the syntax, thus producing an ambiguous reading between a middle and an ordinary active reading of English Agent-Instrument middles.

instrument (…) are not required to have a force of their own. Still, as being an extension of the agent's will, circumstances of instrument are indirectly associated with the agentive end of the action chain" (2007: 43).

The difference between Agent-Instrument and Circumstance-of-Instrument middles is that the Agonist's force of the latter is not directly exerted against a patientive participant because in the canonical action chain there is absence of a Patient. Nevertheless, paraphrases with prepositional structures rather than Direct Objects can elucidate the nature of the Antagonist. Recall the *for*-phrase in example (69) above in this respect.

Let us examine Experiencer-Subject middles now.[103] As Yoshimura (1998: 129-130) explains, the criterion for a grammatical structure to be ascribed within the group of Experience-Subject middles is not only to possess a human Subject, but also to rely on a mental attitude or aspect of the personality of the entity in question.[104] Compare these two middles in this regard:

(74) *Mary does not photograph well.*

(75) *Mary discourages easily.* (Yoshimura, 1998: 129)

Instances like (74) above would not belong to the class of Experiencer-Subject, as in this case the human entity is being "perspectivised in terms of an object related to the feasibility of her 'photographing' – namely a perspective of whether a person has poor facial expressions, inelegant posture, and so on" (Yoshimura, 1998: 129-130). Therefore, according to the classification proposed here, instances like (74) would be considered as marginal members of the 'action-oriented middle' group in combination with a +Animate Subject (rather than an Experiencer-Subject). The fact of considering (74) as 'marginal' is also addressed in Section 3.1.3.1, but in synthesis, this idea entails that Inanimate Subjects are more prototypical in the middle construction than Animate ones. On the other hand, Experiencer-Subjects occur in combination with a very restricted class of ergative-

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[103] In Davidse and Olivier (2008: 181), this sub-type of middle is identified as 'middles with please-type mental predicates with affected experiencers'. In addition, the authors also include other marginal cases of middles involving the role of the Experiencer in combination with two sub-types of *perception verbs*. The issue of middle formation with the incorporation of *perception verbs* is addressed in Section 2.3.3.

[104] See Palma Gutiérrez (2021a) in this regard.

like verbs (*i.e.*, Levin's (1993: 189) class of '*amuse* verbs'[105]), whereas the marginal class of +Animate human Subjects occur with action-oriented verbs, as explained down below.

Then, which syntactic, lexical-semantic, pragmatic and cognitive factors would determine the classification of an entity as an Experiencer-Subject in the middle construction, as 'Mary' in (75) above? According to Yoshimura, the verb 'discourage' appearing in (75) "expresses a human feeling that entails a change from a normal to a less normal state" (1998: 130). This change of mental or psychological state is equated to the physical change of state suffered by prototypical Inanimate Patients in canonical ergative-like middles.

In fact, according to O'Grady (1980: 65), those verbs denoting emotions that "have their origin more in the beliefs and psychological make-up of the experiencer than in the physical properties of the stimulus" build proper middles, as they are Object-oriented structures. Consider examples (76) – (79) below in this regard:

(76)   *She fears that her employer may change her job schedule when she returns.* (Linguee, last accessed 26/11/2020)

(77)   **Elephants fear easily.* (O'Grady, 1980: 65)

(78)   *This suggestion terrifies you.* (O'Grady, 1980: 65)

(79)   *John terrifies easily.* (O'Grady, 1980: 65)

As can be observed, the verb 'terrify' projects the stimulus as grammatical Subject in the transitive form, as shown in (78), whereas the verb 'fear' codifies this argument as the Object in the transitive alternation, as illustrated in (76) above. Therefore, instances like (79) build proper middles as they are Object-oriented, while examples like (77) are not middable due to their Subject-orientation.

Hale and Keyser (2002: 37-38) also deal with this issue. The authors' theory of argument structure would account for the contrasts in terms of middle formation in English between Object-experiencer and Subject-experiencer psych verbs. Consider the following instances in this regard:

(80)   *Politicians anger easily.*

(81)   **French films love easily.* (Hale and Keyser, 2002: 38)

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[105] See Section 3.1.3.1 for a detailed examination of Experiencer-Subject middles as the combination of +Animate entities and Levin's (1993) class of *amuse* verbs.

Hale and Keyser (2002: 37-38) explain that Object-experiencer psych verbs are middable, as 'anger' in example (80) above. On the contrary, Subject-experiencer psych verbs like 'love' in example (81) above, despite their transitive nature, are non-middable. In other words, the induced emotion 'anger' is attributed to the Patient (*i.e.*, the internal argument); whereas the emotion of 'love' is linked to the Agent, *i.e.*, the external argument. As the authors put it,

> object experiencer verbs form middles because they conform to the requirement that *the relevant argument (the experiencer in this case) is 'affected'* by the action denoted by the verb, while the relevant argument of subject-experiencer verbs is unaffected, in some sense, and therefore fails to meet the Affectedness Requirement. (Hale and Keyser, 2002: 39; emphasis added)

Even though it has been demonstrated that the Affectedness Constraint is not a valid generalization in terms of middle formation, Hale and Keyser (2002) successfully point out at the impossibility of Subject-Experiencer verbs like 'love' to undergo the middle formation. In addition, Ackema and Schoorlemmer (1994) also explain that state verbs (like 'love' and 'hate') are generally considered non-middable because their Subject entities are non-affected arguments, so the authors incorporate the idea that "this is a consequence of the fact that state verbs have no action tier" (1994: 74). On the contrary, verbs like 'scare' in (82) below are middable because the Experiencer-Subject belongs to the authors' class of thematic tier arguments:

(82)   *Children scare easily*. (Ackema and Schoorlemmer, 1994: 72)

In this same line of analysis, Cortés-Rodríguez and Mairal Usón comment that "transitive verbs with no effector (as are *cognition verbs* like 'know', 'understand', 'realize', *verbs of feeling* like 'admire', 'love', 'fear', or *perception verbs* like 'see' and 'hear'[106]) are naturally excluded from subsumption" (2013: 231). Hence, the syntactic restriction operating upon Experiencer-Subjects in the middle construction entails their occurrence with Object-oriented transitive verbs. By contrast, Subject-oriented transitive verbs are not allowed in the construction. Particularly, according to Levin (1993: 189), in her classification of transitive *psych-verbs* or *verbs of psychological state*, only her class

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[106] As detailed in Section 2.3.3, scholars like Davidse and Olivier (2008) reanalyse middles with mental predicates with active Experiencer, particularly emphasising *perception verbs* like 'hear' and 'see'.

of '*amuse* verbs' can undergo the middle alternation,[107] whereas those catalogued as '*admire* verbs' cannot. Accordingly, the semantic restriction involving the grammaticality of middles with Experiencer-Subjects involves the presence of an affected participant. As Davidse and Olivier write, "the *strong affectedness of the experiencer* (Kemmer, 1993: 136) licenses the construal of unmarked passives (Halliday, 1994: 169; Langacker, 1991) and, by extension, middles" (2008: 182; emphasis added).

In addition, in the cognitive construal of this type of affected participant, the criterion to validate its grammaticality is contingent upon the perspectivization of the entity in terms of their mental attitude, hence designating the participant with respect to their personality or mood (Yoshimura, 1998: 130). Therefore, the contextually invoked properties of this type of middle Subject rely on "personality traits, psychological features and dispositions of the experiencer which are conducive to that type of mental process having such an impact" (Davidse and Olivier, 2008: 183). Remarkably, as shown in examples (83) and (84) below, "the selection restriction on the experiencer role is 'animacy' rather than 'humanness'" (Davidse and Olivier, 2008: 183):

(83) *Rabbits frighten easily and are extremely fragile when it comes to being handled.*

(84) *Deer are very alert and cautious animals that can scare easily.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In these examples, the contextually invoked properties of the Experiencer-Subjects coincide with certain 'specific etological features' of these animals (Davidse and Olivier, 2008: 183).

Despite the relative high frequency of appearance of this type of structure (as shown in the corpus compiled in this dissertation),[108] Experiencer-Subject middles have generally been discarded as middles (*cf.* Iwata, 1999: 536) or simply rendered to a marginal position. Nevertheless, by understanding this type of structure as a metonymically-motivated extension of the ergative-like middle, in this dissertation it is

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[107] The case of Experiencer-Subject middles occurring with *verbs of emotion* (*amuse* verbs) is addressed in detail in Section 3.1.3.1.

[108] The Goldbergian strand includes the requirement of high frequency in compositional configurations as criterion for construction status (Goldberg, 2006: 214-215).

argued that the Experiencer-Subject structure meets all the criteria for middability. As Davidse and Olivier write,

> [a]t the schematic constructional level, [the Experiencer-Subject middle] instantiates the criterial characteristics of the middle voice, viz. letting modality and conducive subject. However, (…) examples are not often quoted in the literature. In [Experiencer-Subject middles] an experiencer is construed as being, so to speak, inclined or resistant to being affected by mental processes, typically emotional ones.[109] These middles are the only ones which do not have an implied agent that is necessary animate, but is typically a phenomenon just happening to affect the experiencer. There is, therefore, no default coincidence between implied agent and speaker/evaluator, as there is in the other types of middles. (Davidse and Olivier, 2008: 182)

Finally, in this section, the nature of Setting-Subject middles is examined. Setting-Subject middles include both Location and Means Subject entities, as those illustrated in examples (85) – (89) below:

(85)   [about a tennis court] *It is slightly coarser, so it plays a bit slower.* (Heyvaert, 2003: 129)

(86)   *The truck loads easily*. (Ackema and Schoorlemmer, 1994: 72)

(87)   *Studio B records well*. (Yoshimura, 1998: 128)

(88)   *The top loch is fishing well*. (Davidse and Heyvaert, 2007: 46)

(89)   *This music dances better than the other one*. (Van Oosten, 1986: 8)

Examples (85) – (88) belong to the class of Location-Subject middles, whereas (89) is an instance of a Means-Subject middle. As Heyvaert puts it, in Setting middles, the Subject entities "designate either the *means* that is used to carry out the process [as 'music' in (89)] or they specify its *location* [as in examples (85) – (88) above]. They are normally realized as prepositional phrases" (2003: 130; emphasis added) in their respective default action chains. Therefore, one 'dances *to* music', 'plays tennis *in* a tennis court', 'loads a truck *with* hay', 'records songs *in* Studio B', and 'fishes for tuna *in* a loch'.

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[109] Davidse and Olivier notice that "[r]ather than expressing the facility of carrying out a specific action on the subject, [the Experiencer-Subject] expresses that does not – or does – take much for the subject to be emotionally affected in a certain way" (2008: 183). In this respect, Yoshimura also points at the fact that "Experiencer Subject middles often take verbs expressing mentally 'downward' states" (1998: 137). This idea could contribute to a cognitive explanation on the fact that instances like '*Mary discourages/panics/frightens/astonishes/frustrates easily*' are grammatical, whereas examples like '**Mary encourages/brightens/animates/delights easily*' are not (or, at least, more specific contexts of occurrence are needed for their grammaticality).

What all these examples have in common is that their verbs express actions that do not entail any change of state due to the lack of a patientive participant in their middle interpretation. In other words, these middles are interpreted as containing verbs in their intransitive use, an implied Agent participant and a circumstance of location or means. Remarkably, as Marín Arrese explains,

> [s]ince the middle typically profiles the nucleus of the event and leaves the agent or energy source unprofiled, the theme-cum-energy source participant is bypassed as the participant in the profiled thematic relation in favour of the other available element for starting point status, the means/accompaniment or the locative. This construal is licensed since these non-prototypical instances bear resemblance relations to the middle prototype, as the themes display certain properties which facilitate or hinder the potential action of the implied agent. (Marín Arrese, 2011: 13)

The frequency of occurrence of Setting-Subject middles is relatively low (Heyvaert, 2003: 129), particularly in the case of Means middles. However, Location-Subject middles seem to be somewhat productive in sport registers (like example (22) above), as these middles are chiefly focused on the fact that "the speaker assesses the condition of the surface on which the sport in question takes place, and how it affects the game" (Davidse and Heyvaert, 2007: 45).

2.3.3. Aspectuality in the middle construction

In the linguistic literature on middle formation, the Affectedness Constraint has been largely connected to the aspectual properties of the verb (*cf*. Tenny, 1987; Fagan, 1992: 8; Levin, 1993: 26).[110] Thus, the requirement of an affected Patient would be contingent upon the occurrence of a transitive verb with an affected Object. In previous sections, however, it has been demonstrated that both the transitive and the affectedness constraints are not valid generalizations in terms of middlehood. In Section 2.3.3.1, the non-eventive nature of the middle construction and its connection with notions like genericity and arbitrariness are re-examined. Subsequently, in Section 2.3.3.2, the *Aktionsart* features of the middle construction are explored in terms of the lexical-semantic restrictions and discourse-pragmatic factors that may influence the adscription of a structure to the middle prototype category.

2.3.3.1. The (non-)generic reading of middles

Traditionally, it has been stated that the middle construction is chiefly built in the Present Simple tense due to its similarities with generic statements, therefore, preventing the occurrence of middles in the progressive and the preterit with eventive interpretations (*cf*. Fagan, 1992: 49). For example, Keyser and Roeper (1984: 384) argue that the middle, unlike the ergative structure, involves a non-eventive nature which does not describe "particular events in time". Thus, the middle structure shares this feature with the so-called generic statements or statives, defined as "state propositions that are held to be generally true" (Keyser and Roeper, 1984: 384). On the other hand, ergative verbs can occur in eventive situations by virtue of their possibility of being codified as

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[110] As detailed in Section 3.2, and based on Rijkhoff's (2008a, 2008b) ideas, the notion of aspectuality in middles covers both aspectual properties and *Aktionsart* features. Both are examined at the innermost layer (the Kind layer), but they differ with respect to the following specifications: the aspectual properties of the verb involve those grammatical verbal operators referring to verbal aspect according to ±Ending and ±Beginning features; whereas the notion of *Aktionsart* refers to the occurrence of lexical verbal modifiers. By means of the analysis of the symmetry in the underlying structure of the middle nominal and its verbal predicate, the notions of verbal aspect and *Aktionsart* can be compared to those of nominal aspect and *Seinsart*.

imperative/vocative structures (Keyser and Roeper, 1984: 384). In fact, as O'Grady comments, middles, unlike ergatives, express "a general tendency or *potential* rather than a specific event" (1980: 59; emphasis added).[111] In addition, Fagan explains that ergatives, unlike middles, do not require adverbial modification because "ergatives are typically used to report events, [and] it is sufficient to state that something has happened or is happening", whereas it is required in middles because they "are used not to report events but to attribute a specific property to some object" (Fagan, 1988: 200). Keyser and Roeper (1984) also point at the idea that middles and stative verbs, unlike ergatives, cannot occur in the progressive, since these two types of structures are non-eventive.

By contrast, Roberts (1987: 257) comments that "the impossibility of progressive middles is function of the more general impossibility of the progressive with statives", therefore, an instance like '*Books on word-processing are selling more and more these days*' would be considered a proper middle, even despite the occurrence of the progressive form, because the non-eventive nature of the structure remains intact.[112] In this sense, as Roberts puts it, "it seems that, rather than being *like* statives, as Keyser and Roeper observe, middles *are* statives" (Roberts, 1987: 198; emphasis added). The author holds the idea that "middles pattern like statives" with respect to the following tests: (i) both structures show resistance to including a complement to object-control verb;[113] (ii) both structures are incompatible with the pseudocleft construction; (iii) both structures are unable to occur with the iterative simple present;[114] (iv) both structures resist a punctual interpretation in the preterit; and (v) both structures are temporarily independent, *i.e.*, they allow a simultaneous reading of two activities. Roberts goes on to argue that "[a]spectual interpretation is a function of θ-role assignment" (1987: 199). Hence, a verb

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[111] The potential value of middles is explored in Section 3.2.

[112] See also Fagan (1992: 53-54) and O'Grady (1980: 67). Fagan explains that in middles occurring in the progressive (like '*This manuscript is reading better every day*'), the progressive does not relate to the eventive occurrence of the action denoted, but it expresses a change of state in the inherent properties of the Subject over time. Therefore, an eventive reading of middles in the progressive aspect is precluded.

[113] Roberts (1987: 203-204) exposes that Object-Control verbs would refer to the notion of *causation*, *i.e.*, they involve "obligatory temporal dependence of the lower predicate on the matrix predicate".

[114] As Roberts (1987: 257) clarifies, the verb *sell* becomes a counterexample of this rule, since there could be an ambiguous interpretation between a middle and an ergative reading. The author explains that instances like '*Books sell well every day*' and '*Newspapers sell a lot every day at rush hour*' would be interpreted as ergatives, not middles, given their compatibility with the iterative simple present.

is interpreted as stative when the Agent θ-role is unassigned. Hence, the author (1987: 199) aims at equating agentivity with eventhood.

By contrast, the traditional generative premise that the middle construction possesses a non-eventive nature is challenged by functional approaches like Iwata's (1999), a view which is also supported in this dissertation (see also Marín Arrese, 2011: 11). As Iwata puts it, "[i]t is true that middles usually appear in the present tense with a generic reading. But this does not mean that they can never express specific events. Some middles are acceptable in the past tense, expressing specific, actual events. (…) The same is true of progressive aspect" (Iwata, 1999: 530). Consider the following examples in this regard:

(90)   *The steaks you bought yesterday cut like butter*. (Fellbaum, 1986: 4)

(91)   *The steaks you bought yesterday are cutting like butter*.[115] (Iwata, 1999: 532)

In addition, Iwata (1999: 531) also notices that the incompatibility of some middles with the progressive aspect is linked to their incorporation of indefinite Subjects, which are the prototypical Subjects referring to kinds in generic statements. However, when middles contain specific Subjects, grammaticality judgements increase despite the progressive aspect. Compare these examples in this respect:

(92)   ?**Bureaucrats are bribing easily*.

(93)   *These bureaucrats are bribing easily*. (Iwata, 1999: 531)

Therefore, what Iwata (1999) is implicitly pointing at is the theory of prototype effects, by which the most prototypical segments on a category relate to other less prototypical members by virtue of some shared commonality. In fact, Iwata declares that "[i]t might be argued that middles in the past or in the progressive are no longer 'true' middles and are more like ergatives. However, this view would delimit the category 'middle' too narrowly" (1999: 532). Hence, "middles are acceptable in the progressive, albeit with a different meaning. Essentially the same is true of middles in the past tense" (Iwata, 1999: 532). This 'different meaning' implies eventiveness. By permitting

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[115] As stated in Palma Gutiérrez, the main difference between archetypal middles and marginal cases in the progressive relies on the fact that archetypal middles "focus on the end-point of the event denoted by the predicate, whereas non-prototypical progressive/unbounded middles refer to the process phasing the event and, although the end-point is expected to potentially happen, the focus of attention is not on it" (2018: 243).

marginal cases of middles (*i.e.*, those in the progressive and the preterit) enter the prototype category, membership is widened and enriched.

Consequently, if marginal cases of middles occurring with an eventive nature (either in the progressive or in the preterit) are to be considered proper middles too, then, it should follow that "[t]he genericity of middles is merely a typical characteristic, not a defining one" (Iwata, 1999: 532).

2.3.3.2. Aktionsart in middles: lexical-semantic and discourse-pragmatic factors

Roberts (1987) introduces Dowty's (1979) and Vendler's (1967) classification of verbs (or *Aktionsart*), outlining "its relevance for the theory of middles and structural θ-role assignment" (1987: 207). Accordingly, the author clarifies that only accomplishments can form middles,[116] given the requirement of an affected argument (or a Theme, as Roberts calls it) which suffers a change of state. Consider example (94) in this regard:

(94)   *These chickens kill easily.* (Keyser and Roeper, 1984: 383)

Roberts discards the rest of classes of verbs in middle structures: activities are excluded for their lack of such an affected participant and the occurrence of another type of internal argument, a Goal,[117] whereas achievements are barred because they "clearly do involve a change of state, but the change of state is in the external argument rather than in the internal argument" (1987: 211). This internal argument which undergoes a change of state is not a Theme, it is an Experiencer,[118] as Roberts clarifies (1987: 211). Besides, the same argument works to exclude states from the being middable (*cf.* Roberts, 1987: 212).

Interestingly, Fagan (1992) also resorts to the Vendler/Dowty taxonomy to restrict the aspectual verb classes that can undergo the middle formation. In addition to accomplishments, Fagan also includes 'transitive activities', like 'drive' in example (95) below:

(95)   *The car drives easily.* (Fagan, 1992: 68)

Therefore, the author also considers that non-affected participants can occur in Subject position in middles. 'Transitive activities' as well as accomplishments are

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[116] However, Roberts' (1987: 215) proposal is inconclusive regarding the fact that *creation* verbs and *verbs of particle constructions* are non-middable despite being accomplishments.

[117] Roberts explains that 'Bill' in '*John was hitting Bill for an hour*' fulfils the role of Goal rather than Theme/Patient because it does not necessarily undergo a change of state as a Theme would do.

[118] In this respect, Roberts (1987: 215) proposes that the so-called *verbs of psychological state* and *verbs of perception* classes are non-middable. Nevertheless, as detailed hereunder in this section, functional and functional-cognitive proposals have re-examined this issue.

middable because they require the intervention of an implicit Agent (Fagan, 1992: 72). The author blocks achievements and states in terms of middability despite Dowty's (1979: 183) claim that some 'transitive achievements' like 'hit' and 'kick' pass the tests for agentivity. Thus, Fagan concludes that the relevant factor to determine the eligibility of middable verbs does not involve the feature [+Agentivity], but the aspectual properties of the verbs and their thematic roles. In this way, although achievement verbs like 'hit' and 'kick' contain an Agent argument, they cannot undergo the middle formation because "they do not belong to the required aspectual class" (1992: 76) (*i.e.*, the class of transitive activities or accomplishments). Even though Fagan points at the incompatibility of these achievement verbs with the middle construction, as detailed down below in this section, certain semantic and discourse-pragmatic factors can increase the grammaticality of these expressions.

Scholars like Ackema and Schoorlemmer (1994) add the idea that state verbs are not middable, since they "lack the possibility of leaving an ARB argument unprojected" and thus "they cannot have an arbitrary object" (1994: 70). Consider the following examples in this regard:

(96)   ?*She knows*.
(97)   ?*She sees*.
(98)   **She fears*.
(99)   ?*She understands*. (Ackema and Schoorlemmer, 1994: 70)

As the authors comment, instances (96) – (99) cannot mean that the woman in question *knows/sees/fears/understands* some arbitrary thing. Therefore, their ungrammaticality is evidenced due to the lack of a specific Object. In addition, the semantic analysis carried out by O'Grady (1980) adds the idea that the incompatibility of the middle structure with verbs which denote mental or emotional states is due to the fact that "the actualization of the events they denote could not be significantly facilitated or hindered by *properties inherent in the patient*" (1980: 64; emphasis added). Accordingly, examples like (100) and (101) below would be considered ungrammatical middles:

(100)   **The answer realizes easily*.
(101)   **Snakes fear easily*. (O'Grady, 1980: 64)

Therefore, this type of verbs would involve "events that are almost entirely the result of internal processes rather than of features of the external environment" (1980:

64); *i.e.*, these verbs are Subject-oriented, and consequently, they are non-middable.[119] According to O'Grady (1980: 66), this idea of verbs being either Subject-oriented or Object-oriented would also explain why the predicate 'buy' is incompatible with the middle structure, whereas 'sell' is middable, as shown in examples (102) and (103) below:

(102)   *The book is buying like hot cakes*.

(103)   *The book is selling like hot cakes*. (O'Grady, 1980: 66)

The verb 'buy' is chiefly Subject-oriented,[120] that is, it "tends to focus attention exclusively on *the activity of the purchaser*", whereas the verb 'sell' is Object-oriented,[121] given that it focuses on "which *properties* of the object of the transaction could make to the event's actualization" (O'Grady, 1980: 66; emphasis added). In other words, the semantics of the verb 'buy' rely on the abilities of the Agent participant to carry out the action denoted, whereas the semantics of the predicate 'sell' reveals that the intrinsic features of the book' in question are subjectively assessed by the speaker as being conducive to the action, with no requirement of specific abilities of the implied Agent.[122]

Similarly, O'Grady (1980) also relies on this semantic notion of the relevance of the inherent properties of an entity occurring in Subject position to contrast middles and ergatives. In his examination of the lexical-semantic features that would restrict which transitive verbs can occur in the middle construction, the author (1980: 63) chooses the verbs 'split' and 'cut', both meaning the 'partitioning of some object' to present his ideas. These predicates differ in that 'cut' presupposes the participation of an Agent, whereas the verb 'split', when used in its intransitive form, involves a 'self-originating' event. In this way, 'cut' is middable, whereas 'split' projects an ergative process, as shown respectively in examples (104) and (105) below:

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[119] However, as detailed down below, certain types of *state verbs* can undergo the middle alternation, particularly *perception verbs* appearing in middles with mental predicates with an active Experiencer (*cf.* Davidse and Olivier, 2008).

[120] However, as Van Oosten (1977: 463) comments, acceptability judgements of middles with the verb 'buy' increase when the proper contextual situation is provided, for example, by enhancing the inherent properties of the thing being purchased so as it contributes to the purchasing activity. Consider the inherent properties of 'these houses' in '*The low mortgages on these houses mean that they buy easily*'.

[121] See also Dixon (1982: 154) in this respect.

[122] In his explanations, O'Grady (1987) resorts to Van Oosten's (1986) semantic notion of 'responsibility', but in order to avoid the 'ergative fallacy' assumption implied from this analysis, Davidse and Heyvaert's (2007) notion of the 'letting value' or conduciveness of the middle structure is applied here.

(104) *This bread cuts easily*. (Hale and Keyser, 2002: 44)

(105) *The sack split open*. (O'Grady, 1980: 63)

Interestingly, O'Grady goes on to argue that the verb 'peel' "provides yet another insight into how an individual item's meaning determines the class of intransitives to which it will belong" (1980: 64). That is to say, the same verb, 'peel', can be projected in both middles and ergatives, depending on the nature of the entity occurring as Subject. Compare the nature of the 'orange' and the 'paint' occurring in the following instances in this regard:

(106) *The orange peeled easily*.

(107) *The paint peeled*. (O'Grady, 1980: 64)

Example (107) above projects an ergative structure, since "the peeling of paint can easily be seen as the result of a *natural process* which occurs *without the intervention of an agent*" (O'Grady, 1980: 64; emphasis added). On the other hand, the peeling of an orange requires the participation of an Agent, conforming a case of a middle structure in (106) above.

This type of analysis on the nature of the Subject referent to distinguish a middle from an ergative interpretation in structures occurring with the same verb is precisely what leads functional and/or functional-cognitive analyses to explore a wider range of aspectual possibilities in terms of middle formation.

Functional approaches like Halliday's (1967: 49) as well as functional-cognitive perspectives like Lemmens' (1998: 80) agree on the relevance of applying the *Aktionsart* taxonomic analysis to establish the appropriate restrictions on middability, but also pointing at the 'context-sensitive' nature of the construction. Therefore, the functional-cognitive approach to middle formation does not only focus on the semantics of the verb, but it also involves the semantics of the whole construction, including the relation between the arguments and the lexical predicate. This idea is clearly expressed in the work of Ziegeler (1999). As the author writes, "lexical aspect is a composite notion comprising not only the semantics of the verb phrase, but other elements in the sentence as well" (Ziegeler, 1999: 61). Therefore, "[j]ust as transitivity is a feature of clauses rather than individual verbs, so [middle] interpretations arise not simply from the type of verb used in a construction, but from the interaction of the semantics of the verb phrase with other elements in the sentence" (Hundt, 2007: 60). This, in fact, contributes to the idea of

the prototype effects of the middle construction, broadening the process of subsumption within the middle spectrum.

As the example provided by O'Grady (1980: 64) about the fuzzy boundaries of the predicate 'peel' as possessing either a middle or an ergative interpretation depending on the type of entity occurring as Subject, other scholars have focused on the aspectual versatility of the middle structure. As previously mentioned, the analysis of Fagan (1992: 68) about the predicate 'drive' and the possibility of interpreting this activity verb as either transitive or intransitive is notorious. However, functional-cognitive analyses like Heyvaert's (2003) take a step further in the identification of a much more complex range of aspectual features enabling the middle formation. Heyvaert (2003: 128) states that transitive, ergative and intransitive uses of verbs are allowed in the middle construction. Consider the following instances in this regard:

(108) *Broiler rack removes easily*. (Heyvaert, 2003: 128)

(109) *It's heavier, like an emulsion with the texture of chocolate mousse and it doesn't disperse easily*. (Heyvaert, 2003: 128)

(110) *This music dances better than the other one*. (Heyvaert, 2003: 129)

(111) *They rolled the green just before the match and it ran three seconds faster*. (Heyvaert, 2003: 130)

(112) *The brush paints well*. (Heyvaert, 2003: 130)

Example (108) above shows the middle use of the transitive verb 'remove', whereas example (109) reveals the middle use of the ergative verb 'disperse'. Additionally, examples (110) – (112) display middle uses of intransitive verbs. As Heyvaert comments, these cases of intransitive middles contain oblique Subject entities, particularly, relying on information on the means (example (110)), the location (example (111)), or the instrument (example (112)) whereby the action denoted occurs. Therefore, as Heyvaert comments, "[m]iddle formation thus turns out to be remarkably versatile as to the verb classes which it allows for – transitive, ergative and intransitive – and the roles which can be mapped onto the Subject" (Heyvaert, 2003: 130).

Therefore, Heyvaert (2003) is also implicitly pointing out at the prototype effects of the middle construction, accommodating less canonical examples within the middle prototype category. By widening the middle spectrum, the author abandons the traditional restrictions on aspectual properties and other conditions on the participants and she argues

in favour of those aspects that contribute to the shared commonality of middles: the conduciveness or letting value of the Subject entity (Heyvaert, 2003: 140).

Additionally, scholars belonging to the Lexical-Constructional Model, like Cortés-Rodríguez and Mairal Usón (2013: 230), also explore the lexical and semantic constraints that restrict verbs for subsumption to the middle construction. By broadening the 'Vendler/Dowty taxonomy' of classes of verbs, the authors propose that in the middle construction "the verbal predicate must have an (initial) activity structure and two argument variables" (2013: 230). Then, according to the authors, only these three lexical aspectual classes of verbs would be excluded from the middle spectrum: states, achievements, and non-causative accomplishments,[123] as respectively shown in the following examples:

(113)   *This girl loves easily / *This school sees easily.

(114)   *This races wins easily / *This town arrives easily.

(115)   *Lemmon trees bloom easily / *The temperature soars quickly. (Cortés-Rodríguez and Mairal Usón, 2013: 230)

As Cortés-Rodríguez and Mairal Usón write, hence, "we can find examples of middle structures with all other classes of verbs" (2013: 230): activities, causative states, causative accomplishments, and semelfactives,[124] as respectively displayed down below:

(116)   *This piano plays beautifully.*

(117)   *John persuades easily.*

(118)   *These chickens kill easily.*

(119)   *These lights would not flash.* (Cortés-Rodríguez and Mairal Usón, 2013: 230)

Even though Cortés-Rodríguez and Mairal Usón (2013) establish an *Aktionsart*-based classification of verbs for lexical subsumption to the middle structure, the authors also examine other lexical-semantic conditions affecting the arguments: the implicit

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[123] Cortés-Rodríguez and Mairal Usón (2013: 230) comment that non-causative accomplishments and achievements are non-middable because they are "internal-only – *i.e.*, strictly inchoative – changes of state". In other words, they conform ergative structures which involve causality in their Subject entities.

[124] See Section 3.2, whereby a functional analysis based on Rijkhoff's (2008a, 200b) ideas is applied to point at the aspectuality of middles, including: (i) verbal aspect according to ±Ending and ±Beginning features, and (ii) *Aktionsart* features of middles.

Agent and the middle Subject. Accordingly, the authors resort to the notion of 'constructional template' to complete their analysis on middability in terms of subsumption restrictions.[125] With this 'lexical-constructional template', the authors account for the compatibility between the lexical elements (*i.e.*, the predicate and its arguments) and the middle construction schema.

Nevertheless, other functional-cognitive approaches to middle formation seem to broaden even more the range of middable verbs in terms of lexical-semantic conditions, also contributing to the ideas of the prototype effects of the construction. This is the case of Davidse and Olivier (2008). The authors examine mental and verbal predicates and elaborate a classification of marginal middles (*contra* Fellbaum, 1986: 15). In addition, Davidse and Olivier also "investigate to what extent these subtypes instantiate the characteristics of core middles, *viz.* letting modality, conducive subject and specification by the predication of the way the process is carried out" (2008: 169). In doing so, the authors (2008: 178) point at the "pragmatic-semantic, collocational and constructional differences" between the subtypes analysed and core middles. Consider the following examples summarising Davidse and Olivier's (2008) typology of marginal middles:

(120)   *The stories narrate easily.*

(121)   *You astonish easily.*

(122)   *Two-line display sees easily.*

(123)   *That cheese smells nice.*

(124)   *Xitaqua pronounces chi-ta-qua.* (Davidse and Olivier, 2008: 169)

In Section 2.3.2, some of these subtypes were examined with a different nomenclature: Davidse and Olivier's (2008) 'middles with verbal predicates' (instantiated in (120) above) and 'middles with *please*-type mental predicates with affected experiencer' (illustrated in (121) above) are here called, respectively, 'action-oriented middles' and 'Experiencer-Subject middles'. Interestingly, the authors include other marginal subtypes of middles which have been considered controversial in the literature: 'middles with mental predicates with active experiencer' (as (122) above),

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[125] The Lexical-Constructional Model (LCM) focuses on the examination of the interaction between the lexical and the constructional templates corresponding to a given construction. For a detailed examination on the notion of 'lexical-constructional template', see Section 2.3.4.

'middles with *perception verbs* expressing attribution' (like (123) above), and 'middles with verbal predicates expressing identification' (as (124) above).[126]

Let us examine these three last cases. First, 'middles with mental predicates with active experiencer' are constructed with the *perception verbs* 'see' and 'hear', and their frequency of appearance is low. This could explain the general reticence judgements to include this subtype within the middle scope. In fact, the acceptance of middles with this type of *state verbs* has been largely discussed in the literature (*cf.* Cortés-Rodríguez and Mairal Usón, 2013: 230; Fellbaum, 1986; among others). As Davidse and Olivier write, "[w]ith verbs such as 'hear' and 'see' the objects, which are the phenomena of experience, are not full patients in the sense that they are not affected by the process" (2008: 183-184). In this respect, this subtype of middles is similar to action-oriented middles, due to their lack of affectedness; however, they differ in the degree of transitivity attributed: middles with *perception verbs* with active experiencer "are lower in transitivity" than action-oriented middles, hence the later "score high on the parameters 'action' and 'volitionality'" (Davidse and Olivier, 2008: 184).

As Davidse and Olivier explain, this subtype of middles "may be infrequent but they approximate core middles both in their interpersonal constructional semantics and in terms of how semantic roles are mapped onto these" (2008: 184). Besides, "the subject entity is clearly being evaluated in the process: the hearer is instructed to infer for him- or herself which specific qualities of the subject entity are responsible for the claims made about easy or pleasant perception" (2008: 184-185). Additionally, the authors comment that despite their infrequency, this subtype of middles is relatively productive in "advertisements or in consumer evaluations on the Internet" (2008: 185), as the examples below demonstrate:

(125)   [about a radio] *This setup hears nicely, has plenty of dynamic range, ...*

(126)   [about a transportable music system] *When I fly it sees easily and can get sprung around*. (Davidse and Olivier, 2008: 184)

For their part, 'middles with *perception verbs* expressing attribution' differ from core middles in that "the predicate is not elaborated by an adverbial but by an adjective"

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[126] In the corpus of this dissertation, examples of marginal middles with mental predicates with active experiencer, with perception verbs expressing attribution, and with verbal predicates expressing identification are not included.

(Davidse and Olivier, 2008: 185). This constructional difference enhances the semantic similarities between this subtype of middles and copular/attributive structures. However, despite further removing from core middles, "the grammatical relations in them are, in origin, middle: a non-agentive subject is integrated with an active VP, whose predicator implies an agent. The subject is the percept and the perceiver is the implied agent" (2008: 186). The reticence judgements to include this subtype of middles within the middle spectrum, as Davidse and Olivier (2008: 188) explain, can be motivated by the process of delexicalization observed in these marginal middles in their historical development. The verbs which correlate with this subtype of middles are 'smell', 'feel', 'look' and 'taste', as respectively shown in the following examples:

(127) *This cheese smells nice.* (Davidse and Olivier, 2008: 189)

(128) *All matter can absorb energy (this is why an iron roof, or for that matter a sunbather or a raisin, feels hot in the sun).* (Davidse and Olivier, 2008: 186)

(129) *My tummy looks better to me now.* (Davidse and Olivier, 2008: 186)

(130) *Our Fresh 8 Vegetable Juice tastes rich and clean, without the salt and processing you'll find in canned products.* (Davidse and Olivier, 2008: 186)

The last subtype of marginal middles presented in Davidse and Olivier refers to those middles built with verbal predicates expressing identification, mainly "verbs designating either the decoding (*e.g.*, 'read') or the encoding (*e.g.*, 'spell') of semiotic signals" (2008: 190). The major difference between them and other middles with verbal predicates (like action-oriented middles such as '*This book reads easily*') is that the adjunct "does not express in what way or with what result the encoding or decoding can be carried out. Rather, the predication identifies a decoding or encoding value of the semiotic entity designated by the subject" (Davidse and Olivier, 2008: 190). Hence, "the elements of these clauses are related to each other as in copular identifying clauses" (Davidse and Olivier, 2008: 190-191). In other words, the Subject is constructed as "the entity to be identified", whereas the complement correlates with "the identifier" (Davidse and Olivier, 2008: 191). Nevertheless, this subtype of middles is similar to more prototypical ones in that the verbal phrase implies an Agent, in this case, a decoding or encoding one. Therefore, even though the conducive modal value is attenuated (in the

sense of Langacker, 2000: 297), "the middle relation can be recognized to a certain extent" (2008: 191). Some examples of this subtype of middles are shown down below:

(131)   *A sign on the curtained store reads: 'Come in. We're open'.*
(132)   *The government is quite happy to sell C one N D Y because it spells Cindy.*
         (Davidse and Olivier, 2008: 190)

Apart from the lexical-semantic conditions analysed so far in this section, some (functional-)cognitivists have also examined the improvement of acceptability judgements via contextualization in the middle construction. By challenging most formalist approaches, scholars like Yoshimura (1998: 131) and Cortés-Rodríguez and Mairal Usón (2013: 235) explore the discourse-pragmatic factors that can license the grammaticality of otherwise non-middable lexical verbs due to the cospecification contributed by the rest of elements of the construction, *i.e.*, the arguments and the adverbial modification.[127]

In this respect, Yoshimura (1998: 131) comments that in the case of some *verbs of cognition* like 'acquire' and *verbs of impact* like 'kick' and 'hit', traditionally considered unable to undergo the middle formation, contextual information can supply the appropriate middle interpretation (see also Goldberg, 1995: 185). Consider the following examples in this regard:

(133)   *French acquires more rapidly than Esperanto when children are under six.*
(134)   *This ball kicks easily, but that one doesn't.*
(135)   *These baseballs hit like a dream.* (Yoshimura, 1998: 131).

Contra Hale and Keyser (2002: 44), Levin (1993) and others, Yoshimura (1998: 131) explains to what extent discourse-pragmatic information can license the acceptability of middles with *verbs of impact*. Hale and Keyser point at the fact that *verbs of impact* like 'kick' and 'hit' are "linked to [their] source, the external argument" (2002: 44). In other words, these verbs rely on the abilities of the Agent instead of enhancing the inherent properties of the middle Subject. However, Yoshimura (1998) demonstrates that achievement *verbs of impact* like 'hit' and 'kick' are middable depending on certain contextual factors, *i.e.*, when the inherent properties of the Subject entity are either

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[127] The lexical-semantic and pragmatic process of compositional cospecification occurring in the middle construction is complemented with the theory of *qualia* structure, as fully developed in Section 3.1.

explicitly or implicitly considered relevant as compared with those of other similar entities. For instance, in (134) above, the comparison between entities is made explicit by means of the contrastive clause incorporated, whereas in (135) this relation is either implicit or just mentioned in other chunk of the conversation. Anyway, in both examples, the occurrence of specific entities (introduced by the definite demonstrative pronouns 'this' and 'these') increase the comparative value of the constructions.[128]

Similarly, as attested in Yoshimura (1998: 131), the middle interpretation of some *verbs of cognition* like 'acquire' in (133) above is improved when the appropriate contextual information is supplied.[129] The process denoted by the verb 'acquire' here is related to some cognitive phenomena whose occurrence is conducive or enabled thanks to the subjective speaker-assessment on the inherent properties of the thing that is acquired, in this case, the Esperanto language.

In addition, as it was previously explained with the 'peel' instance provided by O'Grady (1980: 64), lexical-constructionists like Cortés-Rodríguez and Mairal Usón (2013) also comment on the middability of certain structures which occur with the same predicate but possess different Subject entities. Thus, grammaticality judgments in favour of a middle interpretation are gained depending on the nature of the entities co-occurring with some verbs. As the authors put it, "the same verb, even with the same type of entity, can yield either a grammatical or an ungrammatical middle, depending on the situational context" (2013: 236). The authors examine the following pairs of 'paradoxical' instances:

(136)   *Thunder hears easily / The bass notes don't hear very clearly*.

(137)   *The baby will wash easily / A baby washes more easily than an armadillo*.

(138)   *This sonata plays easily / This sonata plays well on the piano*. (Cortés-Rodríguez and Mairal Usón, 2013: 235-236)

As previously stated, the acceptability of these structures as middles improves because some discourse-pragmatic inferences are incorporated to the analysis of those examples. The contexts of these structures construe situations in which the Subject entities are compared to other similar ones, thus enhancing the relevance of the inherent

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[128] See Section 3.2 for a complete account on how situational and discourse-referential features in combination with certain grammatical location modifiers contribute to the interpretation of middles in terms of their generic/individuative type of referencing (*cf*. Rijkhoff, 2008a, 2008b).

[129] See also O'Grady (1980: 65) and the (marginal) middle interpretation attributed to instances with *verbs of cognition* in structures like '?*These numbers remember/forget/learn easily*'.

properties of the encoded Subjects as subjectively assessed by the speaker in terms of their conduciveness to the actions denoted. For example, the 'bass notes' in (136) don't hear very clearly in comparison to those of another implicit instrument. By contrast, the comparison is made explicit in (137) between the 'baby' and the 'armadillo'. Finally, the 'sonata' in (138) seems to be played more easily in the piano than in any other implicit instrument.

2.3.4. The nature of the adjunct: semantic classification of middles

In the linguistic literature on middle formation, the occurrence of adverbial (or some other type of) modification has been largely considered a requirement, not only to distinguish the middle from the ergative structure,[130] but also as a *sine qua non* condition for the semantics of the construction, providing a higher degree of informativeness (*cf.* Keyser and Roeper, 1984: 382-383; Pinker, 1989: 155; Cortés-Rodríguez and Mairal Usón, 2013: 235). In fact, it has been frequently argued that the requirement of adverbial modification is directly associated with the implication of the unprojected Agent participant (*cf.* Roberts, 1987; Hoekstra and Roberts, 1993; Fagan, 1992; Levin, 1993: 26). Besides, numerous scholars have also attempted to delimit the restrictions imposed by the semantics of the construction by which the typology of permitted adverbs is influenced (*cf.* Roberts, 1987; Fagan, 1992).

Keyser and Roeper explain that the adverb which by excellence "induces the middle reading fairly reliably […] by implying an agent" is 'easily', although other adverbs (namely, 'well', 'nicely', and 'rapidly') also participate in the same successful way in the middle formation process (1984: 383). By contrast, Dixon suggests that the primitive adverbials allowed in the middle construction are 'well', 'badly', 'slowly' and 'quickly', and other productive adverbials (like 'easily') would be considered just "an extensional pattern, by analogy" (1982: 155).

Whatever the primitives or the extensions, what is remarkable is that the appropriate adverbial modifications allowed in the middle construction are *restricted*. In the framework of Constructional Grammar, the fact that the semantics of the middle construction is chiefly in need of adverbial modification, considering the severe restrictions about the types of adverbs allowed, leads to the conclusion that there exists a subjacent schema of the type 'Verb + Adverb collocation' in the middle construction in English (*cf.* Palma Gutiérrez, 2021a: 104). As Bosque comments, "restricted adverbs are

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[130] Additionally, according to O'Grady (1980: 60), middles, unlike ergatives, are in need of adverbial modification when they occur in other than the Simple Present to refer to specific events, without losing their non-eventive nature.

collocates" (2016: 17). Down below in this section, this idea of the collocation occurring in middles is also explored by means of Heyvaert's (2001, 2003) and Davidse and Heyvaert's (2007) semantic typology of middles.

In the literature, scholars have favoured the restriction of adverbs occurring in the middle structure to the class of manner (*cf*. Fagan, 1992: 41; Dixon, 1982: 153; Roberts, 1987: 232).[131] Fagan explains that this is basically because manner adverbs "describe how the action of the predicate can be carried out with respect to the entity specified by the subject" (1992: 41). However, following Fellbaum's (1985: 27) explanations, Fagan clarifies that not all manner adverbs are compatible with the middle construction: "manner adverbs that are agent-oriented (those that attribute a property to the agent in addition to modifying the predicate) are not acceptable in middles" (1992: 56), as shown in examples (139) – (141) below:

(139)   *The novels sell proudly.*

(140)   *This light plugs in expertly.*

(141)   *Polyester cleans carefully.* (Fagan, 1992: 56)

Those manner adverbials that are not allowed in the middle construction "posit a trait in the agent, which is manifested in the performance of an act" (Fagan, 1992: 155). On the other hand, manner adverbials which are *Subject-oriented* are acceptable in middles,[132] as shown in example (142) below:

(142)   *This book reads easily and flows well with stories I can relate to, clear information and understanding of ADD, and best of all, many strategies for living with ADD.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In other words, the fact that the 'polyester' in example (141) above can be cleaned 'carefully' refers to the fact that the implicit Agent carries out the cleaning activity with care. Therefore, the Agent's performance would be considered the ultimate responsible

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[131] According to Heyvaert's (2001, 2003) and Davidse and Heyvaert's (2007) semantic typology of middles, the manner adverbial modifiers referred to by Fagan (1992: 41, 56) would belong to different classes, like Facility, Quality, Time, or Result-oriented, among others.

[132] See also Dixon (1982) and Hendrikse (1989: 361) on the idea that the adverbial modification needs to be Subject-oriented in order to satisfy the eligibility conditions for middable verbs. The notion of 'Subject-oriented' used here is directly associated with the Subject entity in the middle construction. In canonical transitive structures, this type of adverb would be called Object-oriented.

for the action denoted by the predicate. On the other hand, the fact that the 'book' in example (142) above can be read 'easily' does not rely on the abilities of any particular Agent, but on the inherent properties of the book in question, like the type of calligraphy used, the writing style, the distribution of paragraphs, etc. That is, the qualities of the 'book' itself are subjectively assessed by the speaker as being conducive to the reading activity in an easy way. See also O'Grady (1980: 68 and 70) in this respect.

Therefore, the adverbs allowed in the middle construction "can only be made sense of if we state the semantics of the middle in terms of an agent" (Davidse and Heyvaert, 2007: 50-51). As Marín Arrese writes, "the middle accepts modifiers which evoke the efforts of an agent" (2011: 6). That is, it is precisely due to the incorporation of the adverb that the semantics of the middle construction can reflect the implied role of the nonprojected Agent. Accordingly, the process of topicalization is also favoured by this type of adverbial modification (Dixon, 1982: 153).

Nevertheless, other-than-adverbial modification is possible in the middle construction. Iwata (1999: 528-529) uses the notion of 'adverbial affect' to refer to other types of modification in the middle structure. In this regard, Roberts (1987: 232-233) points at the occurrence of other elements like epistemic modals, negative polarity items, and contrastive stress patterns. Consider the following instances:

(143)   *This book could sell.*
(144)   *The bureaucrats will bribe.*
(145)   *This bread doesn't cut.*
(146)   *Not many/few bureaucrats bribe.*
(147)   *Any bureaucrat bribes.*
(148)   ?*Bureaucrats BRIBE.*
(149)   ?*CHICKENS kill.*
(150)   ?*This bread DOES cut.* (Roberts, 1987: 232-233)

Examples (143) and (144) instantiate middles with epistemic modality, respectively with 'could' and 'will'. Examples (145) – (147) illustrate cases of negative polarity items in middles, particularly showing simple negation (in (145)), a negatively quantified Subject (in (146)), or 'any' as Subject quantifier (in (147)). Besides, as Roberts (1987: 233) explains, the middle construction can also be adjunctless "if either the Verb

or the Subject has contrastive stress", as illustrated, respectively, in (148) and (149), or "if emphatic *do* is present", as shown in (150).

In addition, Fagan also points out at the occurrence of other-than-manner adverbials in the middle construction, particularly, locative adverbials,[133] as illustrated in (151) below:

(151) [about a hanging sweater rack] *Secures around closet pole*. (Fagan, 1992: 56)

Fagan explains that, under certain circumstances, the requirement of adverbial modification is suspended,[134] as shown in examples (152) and (153) below:

(152) *This dress buttons.*
(153) *This dress won't fasten.* (Fagan, 1992: 57)

Interestingly, Iwata (1999) also explores the semantics of the middle adverb in terms of its position in the utterance. Along the lines of Fujita's (1994) and Fellbaum's (1986) analyses, Iwata "accounts for the fact that a middle verb always precedes an accompanying adverb" (1999: 549). This entails the relevance of the implicit Agent at the semantic level of representation and it is directly associated with discourse functions (Iwata, 1999: 550). As the author writes, "[w]ith middles the adverb carries the most important information" since "the adverbs are needed to add information to an otherwise given piece of information. Therefore, the adverb necessarily occurs postverbally" (Iwata, 1999: 550).

Apart from this principle of informativeness pointed out by Iwata, the middle adverb can also be related to the semantics of the construction in that it specifies the way the action denoted is carried out. In doing so, the inherent properties of the topicalised non-agentive participant are enhanced and, as many scholars have noted, this feature is significantly productive in those contextual situations related to product promotion and advertisement (*cf.* Fellbaum, 1986). In fact, in Palma Gutiérrez (2019b), I have

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[133] See Section 2.3.4 for a detailed analysis of locative adverbials occurring in the middle structure, which would belong to the class of Destiny-oriented middles, in terms of Heyvaert's (2001, 2003) and Davidse and Heyvaert's (2007) semantic typology of middles.

[134] Those middle structures which lack adverbial modification are called Feasibility/Process-oriented in Heyvaert's (2001, 2003) and Davidse and Heyvaert's (2007) semantic typology of middles. This type of middles is examined in Section 2.3.4.

demonstrated that the middle construction 'possesses a chiefly *positive* semantic prosody'. Even though both positive and negative semantic prosody are found in the middle construction, corpus analysis reveals that the middle structure occurs in positive contexts in the majority of cases. As the author puts it,

> [t]he data analyzed reveals that [middles] (…) possess a *chiefly positive semantic prosody* (Oster and Van Lawick, 2008). Such positive semantic prosody is provided by the semantics of the adverb/adverbial phrase in question, not by the semantics of the verb or the noun. Moreover, the productiveness of middle Adverb + Verb collocations involving a positive semantic prosody is assumed as a clear indication of the connection between this grammatical structure and its use in both real life and literature, mainly found in contexts which embroil the promotion or foregrounding of the inherent qualities and selling skills of a given product, as it happens in the field of advertisement. (Palma Gutiérrez, 2019b: 345)

Therefore, the middle structure is "understood as denoting a value judgment of the qualities of the nominal from the perspective of the speaker, expressed by the positive/negative semantic prosody of the verb". That is to say, "the speaker utters a grammatical structure which comprises the semantic charge of a given adverb/adverbial phrase in order to denote a positive or a negative evaluation on the way the process is carried out due to the inherent features of the nominal". (Palma Gutiérrez, 2019b: 347-348). In synthesis, "middles which involve a positive value judgment of the noun working as Subject (…) are connected to a Positive Semantic Prosody in the verb, as expressed by their adverb/adverbial phrase" (Palma Gutiérrez, 2019b: 346). This issue is addressed again in Section 3.2, whereby the (positive) semantic prosody of the middle structure is related to the information provided by the external/situational (attitudinal) factors involving the construction.

Irrespective of the negative or the positive semantic prosody of the middle construction, Heyvaert's (2001, 2003) and Davidse and Heyvaert's (2007) elaborate a semantic typology of middles based on the meaning provided by the adverb.

According to Heyvaert (2001: 291-293, and 2003: 132-137) and Davidse and Heyvaert (2007: 67-69), middles can be differentiated depending on which facet of the interaction between the non-agentive Subject and the predicate is highlighted. The semantic typology that the authors present is elaborated on the basis of specific aspects of the general letting modal value of the middle, whose Subject referent is subjectively

assessed by the speaker as being conducive to the fulfilment of the process designated by the predicate by virtue of the qualities of its inherent properties.

The authors elaborate a semantic typology of middles according to the sort of specifications on the adverbial.[135] According to Davidse and Heyvaert, "[w]hich facet is being focused on is typically indicated by the adjuncts or complements that the predicator is elaborated by" (2007: 67). Hence, the authors' subclassification of middles is an attempt to "correct the bias towards 'facility-oriented' middles generally found in the literature" (2007: 67).

Let us examine in what ways the inherent properties of the middle Subject are linked up with a specification on the adverbial. In this regard, according to Heyvaert (2003: 134), the middle construction distinguishes the following foci: (i) middles focused on "the effect of the properties of the Subject-entity on *how* the process can be carried out" (*i.e.*, Facility, Quality, and Time-oriented middles); (ii) those that "simply highlight the feasibility of the process" (*i.e.*, Feasibility-oriented middles); (iii) those that "zero in on what the process is destined for" (*i.e.*, Destiny-oriented middles); and (iv) those that "focus on what the result is like when the process is carried out" (*i.e.*, Result-oriented middles). In the following paragraphs, the different subtypes of middles are characterized.

Facility-oriented middles (illustrated in (16) below) have been traditionally considered the prototypical middle structures (*cf.* Fawcett, 1980: 148; Fellbaum, 1985). This type of middles "specify how easy or difficult it is to perform the process" (Heyvaert 2001: 292), and they frequently incorporate the adjuncts 'easily', 'well', 'without difficulties' or 'with great difficulty' (Davidse and Heyvaert, 2007: 67-68). Therefore, Facility-oriented middles focus on "whether the inherent properties of the subject-entity are conducive to carrying out the process easily or with difficulty" (Davidse and Heyvaert, 2007: 67).

> (154) *When no longer required, the discs remove easily*. (Davidse and Heyvaert, 2007: 67)

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[135] The original typology proposed in Heyvaert (2001) includes Facility, Feasibility, Destiny, and Result-oriented middles. Besides, the author (2003: 136) considers the incorporation of Quality-oriented middles to her classification and she mentions that "other middle constructions comment on the properties of a particular entity by pointing out at how much *time* it takes to carry out a certain process on it" (2003: 133; emphasis in original). Thus, this subtype of middles is called Time-oriented henceforth.

In Facility-oriented middles, "it is the adverbials that typically carry the information focus and are thus presented as the point of the proposition made by the speaker" (2007: 68). Example (154) above emphasizes how the 'removing of the discs' is carried out, specifying that the process was eventually facilitated by virtue of the inherent properties of the Subject entity.

Feasibility-oriented middles (also known as Process-oriented in Davidse and Heyvaert, 2007: 67), "merely focus on whether the entity construed as Subject does or does not enable the implied Agent to carry out the process" (Heyvaert 2001: 291), and they do not contain any adjuncts. Consider example (155) below in this regard:

(155)   *This dress buttons*. (Heyvaert, 2003: 134)

Therefore, unlike Facility-oriented middles, Feasibility ones "do not so much specify *how* the process can be carried out, as indicate *that* it can be carried out" (Heyvaert, 2003: 132; emphasis in original). Besides, "process-oriented middles with positive polarity typically have intonational prominence on the VP", hence "the VP forms the 'information focus' (Halliday, 1985: 275), or the most salient information of the utterance" (Davidse and Heyvaert, 207: 67). In the case of (155) above, this 'intonational prominence' is pragmatically captured in a situation in which the properties of the 'dress' in question are compared to those of other similar pieces of clothing, which, for example, could integrate a zip rather buttons. As Heyvaert highlights, the incorporation of adjunctless structures to the middle spectrum illustrates that "the most prototypical cases of middle formation may be those with an adverb (such as 'easily' or 'well'), but that *the presence of an adverb is not an absolute prerequisite*" (2003: 134; emphasis added).

For their part, Quality-oriented middles are closely related to Facility ones in that they provide "a more general indication of the *way* in which the process can be carried out" (Davidse and Heyvaert, 2007: 68). This type of middles can include either adverbials expressing quality judgements (like 'superbly' in example (156) below) or comparisons of quality (as 'like a junior sports sedan' in example (157) below) regarding the inherent properties of the Subject (*cf.* Kemmer, 1993: 147):

(156)   *That is easily done because the car handles superbly*. (Davidse and Heyvaert, 2007: 68)

(157)   *The new Holden Berlina handles like a junior sports sedan*. (Heyvaert, 2003: 133)

Instance (156) above emphasizes that the 'handling of the car in question' is qualified as 'superbly' by virtue of certain inherent properties of the Subject entity, namely, its engine power, its braking system, etc. By contrast, as Fellbaum (1985) points out, the qualification expressed by a middle adjunct can also be connected to non-inherent but 'surprising' properties of the Subject referent which are pragmatically inferred. This is the case of (157) above. In this example, the 'new Holden Berlina', which is *not* a sports sedan, possesses surprising properties which makes it conducive to the 'handling' activity as if it were one of these 'junior sports sedans'.

Davidse and Heyvaert describe Time-oriented middles (illustrated in example (158) below) as those which "comment on the (inferable) properties of a particular entity by indicating how these properties influence the TIME it takes to carry out a certain process" (2007: 68). This type of middles incorporates adjuncts indicating the speed at which the action is carried out by the implied Agent, as 'quickly' in (158) below:

(158)   [about a cosy car seat protector] *Quickly attaches / removes with elastic straps and velcro tabs.* (Davidse and Heyvaert, 2007: 68)

The meaning of (158) above emphasizes that the 'car seat protector' in question has certain inherent properties which are assessed by the speaker as being conducive to the 'attaching/removing' activity in the way specified by the adjunct, *i.e.*, 'quickly'.

According to Heyvaert (2001: 292), Destiny-oriented middles have been "largely ignored in the discussion of middle formation".[136] the author explains that "[b]y containing a locative oblique participant, middles [of this type] have shifted in focus from being feasibility- or facility-oriented to being destiny-oriented" (2001: 292). Davidse and Heyvaert (2007: 68) comment that this subtype of middles "specify the typical LOCATION of the subject entity", and they can be focused either on "where the subject entity is meant to be placed to make it function" (as in examples (159) – (161) below) or "where it is stored when it is not being used" (like in example (162) below). In either case, the 'deliberately designed properties' (in the sense of Lemmens, 1998: 80) that characterise the middle Subject are eminently present. It is precisely those inherent properties of the Subject entities which eventually lead to placing them in their specified locations.

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[136] Destiny-oriented middles are also called 'telic' middles in Heyvaert (2003: 135).

(159)   *The purpose of the device is to alert deer of your approaching, not the other way around. It is <u>a whistle</u> that <u>attaches to your car</u> with self adhesive tape.* (Heyvaert, 2001: 292)

(160)   *The ultimate travel pillow. <u>Resteaz fixes to the headrest</u> providing comfortable head and neck support.* (Heyvaert, 2001: 293)

(161)   [about <u>a children's coat</u>] <u>*Outer flap wraps around little hands*</u> *and secures with Velcro.*[137] (Davidse and Heyvaert, 2007: 68)

(162)   <u>*Playset folds up into a storage case*</u> *with handle for easy carrying.* (Heyvaert, 2001: 293)

Finally, Heyvaert (2001: 292) describes Result-oriented middles as those which "comment on the result of carrying out a certain process on the entity construed as subject". As she explains, "[l]ike all middles, they imply that the Subject enables one to carry out a particular process, but they shift the focus to the situation that results from carrying it out and comment on it" (Heyvaert, 2001: 292). Some instances of Result-oriented middles are illustrated in examples (163) – (166) below:

(163)   *Cards and shapes store neatly in the desk*. (Heyvaert, 2001: 292)

(164)   *She does not photograph well*. (Heyvaert, 2001: 292)

(165)   [about a piece of clothing] *It washed well with little shrinkage and no puckering*. (Heyvaert, 2001: 292)

(166)   [about <u>a bag</u>] *It measures 37 x 60 cm… and <u>folds up neatly</u>*. (Heyvaert, 2003: 136)

It is remarkable to mention that "[t]he adverb 'well' (…) has various different contextual entailments, which in the middle either trigger off a facility- or quality-oriented reading (…) or a result-oriented reading" (Heyvaert, 2003: 136). Consider the meaning of the adverb 'well' in the following instances as compared to its meaning in examples (164) and (165) above:

(167)   a. *This book sells well*.

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[137] In addition, in the authors' words, "[t]he designed properties of the entity may also link up with a specification of the MEANS to realize the action" (Davidse and Heyvaert, 2007: 68), as shown in example (8) with the incorporation of the adjunct 'with Velcro'. The same occurs in example (20) with the adjunct 'with elastic straps and Velcro tabs'.

b. *This car drives well*. (Heyvaert, 2003: 135).

As Heyvaert explains, "[t]hese middles do not mean that the result of 'selling the book' or 'driving the car' is good. Rather, the meaning of 'well' in [167a] comes close to 'fast' or 'in large quantities', whereas in [167b], 'well' can be paraphrased as 'easily', 'smoothly'" (2003: 136). On the other hand, the middles instantiated in (164) and (165) above emphasize the result of the actions denoted as specified by their respective specifications on the adjuncts. Therefore, the 'storing of cards and shapes in the desk' in (163) is likely to be 'neat'. Similarly, example (164) highlights that 'photographing the woman in question' will not lead to getting nice pictures, and "[t]his does not mean that it is difficult to photograph her (facility-oriented meaning), but that the features of this lady's face are not conducive to successful pictures" (Davidse and Heyvaert, 2007: 68-69). Accordingly, the middle instantiated in (165) above "emphasizes that the result of washing the item of clothing was good: there was little shrinkage and no puckering" (Heyvaert, 2001: 292). Finally, the middle in (166) "emphasizes that the result of 'folding up the bag' is likely to be 'neat'" (Heyvaert, 2003: 136).

Interestingly, in other marginal middles, as Davidse and Heyvaert write, "[t]he conduciveness of the subject entity to a qualitatively good result may also be specified by *evaluative adjectives in the complement of the predicator*" (2007: 69; emphasis added), as illustrated in (168) below:

(168)   *The organic, whole wheat flour bakes extraordinary bread!* (Davidse and Heyvaert, 2007: 69)

The incorporation of this type of structure within the middle spectrum is, at best, problematic.[138] The syntactic codification of a Direct Object ('extraordinary bread') has led many scholars to reject a middle reading here. However, example (168) above may acquire a middle interpretation in that certain inherent properties of the 'organic, whole wheat flour' in question are assessed by the speaker as being conducive to the 'baking' activity, particularly resulting into the 'baking of extraordinary bread'. Therefore, it is because of the qualities of the Subject entity that the action is conducive, not because of the abilities of any potential Agent carrying out the baking process.

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[138] This type of structure is not included in the corpus compiled in this dissertation.

2.4. Summary of the chapter

In this chapter it has been stated that the middle construction cannot be understood as a static category but rather it should be considered a prototype category with fuzzy boundaries with both the unergative and the ergative structures. Therefore, because of the prototype effects found in the middle construction, some instances include a higher number of generally accepted features than other peripheral members. However, the middle prototype category is analysed here as being flexible and versatile so as to accommodate extensions of the prototype. Thus, this idea challenges traditional restrictions on middle formation in this way:

(i)   According to the prototype effects of the middle construction, the Subject referent is not always a Patient, since other thematic roles are also possible, like Instrument, Locative, Means, Experiencer. In fact, depending on the degree of affectedness and also the degree of involvement of the Agent, the Subject entity occurring in an ergative-like structure will be considered a Patient (given its high level of affectedness); whereas the Subject referent appearing in an action-oriented structure will fulfil the role of Enabler (provided its somewhat 'agent-like' nature and its relatively low degree of affectedness).

(ii)   The verbal predicate possesses such a versatile nature that it is feasible to find transitive, intransitive, and ergative uses of verbs. Besides, discourse-pragmatic information has been demonstrated to increase the grammaticality judgements of otherwise non-middable predicates.

(iii)   Even though the middle primarily includes an implied arbitrary Agent, in certain contexts the Agent can be projected, hence specifying the participant. Nevertheless, this condition does not necessarily interfere in the typical generic nature of the construction.

(iv)   In general terms, the middle structure involves a generic reading which facilitates the non-eventive interpretation of the construction. However, in certain contexts eventiveness is viable. In addition, the Simple Present is not the only tense admitted in the construction: Simple Past and the progressive are also allowed, as well as predicates introduced by modals like 'will', 'would', and the like.

(v)   Adverbial (or other type of) modification is not a *si ne qua non* condition since Feasibility/Process-oriented middles are also permitted.

(vi)   Finally, the Subject entity is construed as being subjectively assessed by the speaker as possessing certain inherent properties which are conducive to the carrying out of the action denoted by the predicate. Therefore, the relation existing between the middle finite and the Subject referent involves a specific modal value which does not coincide with the traditional modal concept of ability, but rather it entails a letting modal value. As Davidse and Heyvaert write, "the middle finite is always intrinsically modal" (2007: 61).

3. A functional-cognitive view on the middle

This chapter addresses two main issues. Section 3.1 provides a detailed analysis of the conceptual-semantic phenomenon involving the encyclopedic knowledge of the speakers in association with the family-resemblance analysis of the middle prototype category and the consequent mental activation of the target domain in each occasion. Section 3.2 focuses on the examination of the functional symmetry in the underlying structure of the middle Subject and the verbal predicate, also depending on the prototype effects of the construction. Therefore, these two sections are interrelated in this way: the construal of the middle is thought to reflect the symmetry in the underlying structure of the Subject and the predicate, whose relation is characterised as relying on a letting modal value. Such conduciveness of the middle Subject to the action denoted by the predicate is intended in terms of the construal of the situation with respect to certain conceptual operations such as perspectivization, focus assignment and profiling. Such dimensions of construal are interconnected with the encyclopedic knowledge shared by the speakers and the conceptual activation of certain inherent qualities of the referents (*qualia* structure) in the process of Compositional Cospecification occurring in the construction (see Sections 3.1.1 and 3.1.2 in this regard).

In other words, by means of a process of Compositional Cospecification, by which the semantics of the predicate is specified in accordance with the meaning of the nominal entity and the value of the adjunct, the foregrounded inherent qualities of the Subject are subjectively assessed by the speaker as being conducive to the action denoted. Those qualities (expressed by means of *qualia* structure) serve to activate the target domain in cognitive terms, thus producing diverse schemas in Compositional Cospecification depending on the prototype effects within the family-resemblance spectrum. Besides, Section 3.2. also offers a complex analysis that allows the incorporation of the different segments onto the middle prototype category by pointing at the intrinsic features of each structure depending on the lexical-semantic, discourse-pragmatic, cognitive, and situational factors involved. In synthesis, once established in Chapter 2 that the family of structures examined share some basic syntactic, semantic, pragmatic, and cognitive

schemas, the purpose of this chapter is to show how each segment of the middle spectrum can be examined by virtue of its grammatical, cognitive, and contextual intrinsic distinctions.

3.1. Encyclopedic approach and dimensions of construal: The conceptual-semantic nature of middle Subjects and their verbal predicates

Contrary to what the formalist postulate proclaims, Taylor explains that it is not possible to draw a clear-cut dividing line between "what a speaker knows in virtue of his knowledge of a language and what he knows in virtue of his acquaintance with the world" (1995: 81, 89). In other words, semantics and pragmatics conform a continuum or gradation rather than being separated or autonomous (*cf.* Langacker, 1987: 147).

Accordingly, Taylor (1995) and Langacker (1987 and 2008) explain that there exist two basic views of linguistic semantics: (i) the dictionary view; and (ii) the encyclopedic semantics approach. The dictionary view is seen as providing vague or elusive 'purely linguistic' meanings, since it reduces the meaning of the lexical item just to a set of specifications within the "total body of knowledge speakers have about the type of *entity* in question" (Langacker, 2008: 38). Consider, for instance, the dictionary view of the entity 'bull': the basic sense of 'bull' is generally represented by the 'purely linguistic' specifications [MALE], [ADULT], and [BOVINE], whereas other pragmatic or extra-linguistic features pertaining to other facets of our knowledge of this entity would be excluded within the dictionary view, like its relation with bullfighting, for example. Therefore, Langacker claims that "[t]he distinction between semantics and pragmatics (or between linguistic and extra-linguistic knowledge) is largely artifactual" (1987: 154).

Thus, encyclopedic semantics is generally well accepted in Cognitive Linguistics, given that distinctions between semantic and pragmatic specifications of the linguistic and extralinguistic meaning of an entity are understood as a matter of degree of centrality that can be analysed via the encyclopedic approach (Langacker, 1987: 159; Taylor, 1995: 82). The basic idea behind encyclopedic semantics is that a lexical meaning is located in "a particular way of *accessing* an open-ended body of knowledge pertaining to a certain type of entity" (Langacker, 2008: 39, emphasis in original).

In addition, the knowledge components are characterised by possessing different degrees of centrality. As Langacker clarifies, "[t]he multitude of specifications that figure in our encyclopedic conception of an entity clearly form a gradation in terms of their *centrality*" (Langacker, 1987: 159, emphasis in original). The author defines the notion of 'centrality' as "the likelihood of *a particular domain being activated* when an expression is used on a given occasion" (Langacker, 2008: 48, emphasis added).

A domain, as understood in Langacker's (2008, 1987) work, is basically defined as the "context for the characterization of a semantic unit" (1987: 147), more particularly, "any kind of conception or realm of experience" (2008: 44) .[139] Therefore, when certain *specifications* or *domains* are central for a given lexical meaning, they are practically always *accessed* or *activated* in cognitive terms whenever the linguistic expression in question is used. On the contrary, other specifications/domains are peripheral, *i.e.*, they are activated or accessed less regularly or just in particular contexts. Accordingly, "centrality (preferential access) is a matter of degree and subject to being overridden by contextual factors" (Langacker, 2008: 39). In this respect, Yoshimura and Taylor write that

> [t]he acceptability of a middle is dependent on our construal of the designated state of affairs, specifically our conceptualization of the subject referent in relation to the process designated by the verb phrase. The construal draws on various kinds of encyclopedic knowledge activated by our understanding of entities and their real-world contingencies. (2004: 305)

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[139] Langacker's notion of 'domain', Fillmore's (1982) concept of 'frame', and Lakoff's (1987) idealized cognitive model (ICM) are sometimes interchangeable terms. However, as Langacker explains, there are subtle differences among them. "*Domain* has the greatest generality, since neither *frame* nor *ICM* applies very well to basic domains" (2008: 46-47, emphasis in original), whereas an ICM "has the narrowest range of application" since it does not apply to "the ongoing discourse or the physical circumstances of the speech event" (2008: 47). For its part, a frame is better compared to a non-basic domain. Langacker (1987: 147) differentiates basic and non-basic domains. A basic domain is defined as "cognitively irreducible, neither derivable from nor analyzable into other conceptions" (Langacker, 2008: 44). SPACE and TIME are seen as the major representatives within the category of basic domains, together with those experiences felt through the senses (like colour, pitch, temperature, taste, and smell) (see also Taylor, 1995: 85-86). As explored in Section 3.2 of the present dissertation, the fact that SPACE and TIME are cognitively irreducible domains contributes to the analysis of the symmetry in the underlying structure of the middle Subject and the verbal predicate

The question now is which areas or *domains* of this encyclopedic knowledge are activated and how when the speaker utters a middle construction in their speech.[140] According to Langacker (2008: 43-44), linguistic meaning "consists of both conceptual content and a particular way of constructing that content". Particularly, this way of constructing content is referred to with the term 'construal'. The conceptual content of a given linguistic unit is made of a complex net of features (*i.e.*, *specifications* or *domains*) which form a conceptual matrix. The different dimensions of construal are briefly addressed in this section, whereas the specifications/domains which are activated on each occasion are introduced here but further elaborated in Section 3.1.1, establishing a correspondence between the notions of 'domain' and '*qualia* structure' in the middle construction.

For instance, at the conceptual level, the content of the lexical item 'glass' can be evoked in an objective, neutral or even schematic way. Indeed, some of the domains pertaining to this lexical unit would evoke the following: the conception of SPACE, and the notions of container and its content, the latter referring to the schematic concept LIQUID and its more specific correspondent concept WATER. This last-mentioned concept, in turn, would subsume other domains which occupy lower levels of conceptual organization with respect to the high-level domains LIQUID or WATER, namely, the sensation of wetness, the notion of volume, and even our knowledge about the socio-cultural general practice of filling a glass with liquid to drink it (*cf.* Langacker, 2008: 44).

However, when this lexical unit ('glass') is projected into a linguistic usage event, a particular construal of it is inexorably imposed. Consider instances (169), (170) and (171) in this regard:

(169) *The glass with water in it.*

(170) *The water in the glass.*

(171) *The glass is half-full.* (Langacker, 2008: 43)

Example (169) would designate or construe the lexical unit 'glass' as the *container*, whereas (170) focuses on the construal of 'glass' as the *liquid* contained in it, and finally, example (171) presents the construal of 'glass' in relation to the *volume of liquid already filled* in the glass.

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[140] See sections 3.1.1, 3.1.2, and 3.2 for a complete account on domain highlighting or activation in the middle construction by means of metonymy.

Accordingly, Langacker explains that the notion of construal "refers to our manifest ability to conceive and portray the same situation in alternate ways" (2008: 43). In other words, as Verhagen writes,

> [t]he cover term that has come to be used for different ways of viewing a particular situation is 'construal.' At a very elementary level, construal is a feature of the meaning of all linguistic expressions, if only as a consequence of the fact that languages provide *various ways for categorizing situations, their participants and features, and the relations between them*. (2007: 48-49, emphasis included)

In general terms, the notion of 'construal' refers to the way in which the speaker expresses 'content' taking into account which domains are seen as more prominent on each occasion, thus providing a certain *perspective* on it. According to the analysis offered in this dissertation, at the constructional level, the construal of a situation is the way chosen by the speaker to express certain conceptual-semantic domains as more prominent or salient within a given experience, hence focusing on certain facets of it and providing a perspective on it (for example, by choosing a determined participant as Subject of the construction and attributing certain inherent qualities to such participant which are conducive to the action denoted by the predicate). Consider instances (172) and (173) in this regard:

(172) *The pastry chef handles the dough easily*.

(173) *The dough handles easily*. (enTenTen13 corpus, Concordance section, Sketch Engine)

Example (172) provides the perspective view of the 'pastry chef', implying that the handling activity was contingently carried out because of certain features or abilities of the Animate entity construed as Subject, namely, his baking skills. On the other hand, the instance in (173) projects the 'dough' as the Subject referent, pointing at the fact that the handling activity is/can be/will be easily carried out (by an implicit Agent) precisely because it is the inherent properties of the Inanimate Subject entity that are assessed by the speaker as being conducive to the handling activity in an easy way, and consequently, motivating its *construal* as Subject. That is to say, the meaning of the term 'dough' in (173) is derived by imposing a particular construal on the content provided by a domain or a set of domains that are highlighted (*i.e.*, the dough's internal constitution or the easy handling of the ingredients which compose it).

In addition, the construal of a situation like the one instantiated in (173) above is not only built at the constructional level, but it also reaches a more exhaustive analysis when discourse-referential and situational content is also included. According to Langacker, "[a]pprehension of the situational context thus qualifies as a cognitive domain, as does the previous discourse" (2008: 45).[141] Continuing with the analysis of example (173) above, the fact that the 'dough' is encoded as the grammatical Subject of this utterance would also reveal the cognitively relevant or salient status of this entity along the previous chunk of discourse,[142] as well as a particular situational context, for example, one in which the virtues of the 'dough' in question are being praised by the speaker (as it may occur in an advertising context). This issue will be addressed again in subsequent paragraphs by explaining the different construal phenomena which operate in this cognitive process.

The issue at hand now resides in explaining how the grammatical Subject of the middle structure is cognitively construed as such, *i.e.*, how the different saliency criteria determine to what extent an element in the utterance is foregrounded or brought into perspective. In other words, how the conceptual content (provided by certain domains of the meaning of a linguistic expression) is accessed or activated, leading to the building of a certain *construal* of the situation. According to Langacker (2013a: 55), the main dimensions of construal are the following ones: specificity, focusing, prominence, and perspective, and all of them can be applied to any domain.

Specificity, also known as granularity or resolution,[143] is defined as a dimension of construal dealing with "the precision and detail at which a situation is characterized" (Langacker, 2013a: 55). Its converse is known as schematicity. For example, the expression 'blade' in example (174) below is specific with respect to the term 'tool' in (175) below. Conversely, 'tool' is schematic regarding 'blade':

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[141] See Section 3.2 of the present dissertation for further information on how conceptual-semantic, discourse and situational information interrelate.

[142] This idea is present in Givón (1993: 202). The author states that the middle construction topicalises the Patient argument as a result of this entity being "topical across a multi-clause span", *i.e.,* because this argument is "being talked about in the discourse" and it thus becomes a cognitively recurrent, significant or important topic for the speakers.

[143] See also Kemmer (1993: 209).

(174) *The blade cuts easily* and does not leave impressions on your paper or photos.

(175) [about a device called Baker HookOut, which is used in fishing to remove hooks and lures] *It can actually remove a hook intact while the fish is still in the water. This tool attaches easily to your vest with a retractor, so it is always handy when you need it.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Therefore, lexical items (either NPs or verbal predicates) can be elaborated in relations which form a taxonomy or hierarchy ranging from schematicity to specificity, *i.e.*, they form elaborative relationships. Hence, the specific/schematic nature of both middle Subject referents and their verbal predicates is not only appreciated at the conceptual level of analysis, but also at the lexical-semantic or representational level (see Section 3.2 for a detailed account on this regard).

For its part, *focusing* is a dimension of construal which deals with two basic manifestations of cognitive nature: *foregrounding* and *scope*. The latter consists in a first cognitive process of selection of conceptual content of a given lexical unit in language use, given that "[f]or each domain in its matrix, an expression has a *scope* consisting of its coverage in that domain": (Langacker, 2013a: 62, emphasis in original). On the other hand, *foregrounding* refers to further arrangement of scope into *foregrounded and backgrounded domains* ranked for probability of activation, *i.e.*, centrality. Therefore, a domain is foregrounded by virtue of its centrality and it becomes highly susceptible to being activated, whereas other domains are backgrounded due to their peripheral cognitive relevance on a certain occasion (cf. Langacker, 2013a: 57). See Section 3.1.1 for a further account on domain foregrounding or activation.

Scope is a bounded phenomenon; therefore, we are able to conceptualize either entities or events with representational fragments of either an entity's spatial manifestation or an event's temporal occurrence, respectively. In the case of the conceptualization of an *entity*, we mentally access "the domain of *space* for the specification of its characteristic shape", whose "conception requires a certain spatial expanse, extensive enough to support its manifestation". However, such spatial scope "does not subsume the entire universe". Accordingly, when conceptualizing an *event*, "we mentally access a span of *time* long enough to encompass its occurrence, but this temporal scope does not include all of eternity" (Langacker, 2013a: 63, emphasis added). See also

Section 3.2, whereby the symmetry in the underlying structure of the middle Subject and the verbal predicate is examined in terms of their spatial/temporal features, respectively.

The third dimension of construal explored by Langacker (2013a) is *prominence*, which was previously dealt with in Chapter 2, Section 2.3.1. As already mentioned, the two main types of prominence examined by the author are *profiling* and *trajector/landmark alignment*. This dimension of construal is particularly relevant in the analysis of the pragmatic status of the middle Subject (and the demoted Agent), as already explained. Thus, the analysis of this dimension of construal would involve the pragmatic schema 'Patient/Enabler-profiling and Agent-defocusing', as illustrated in Figure 4 in Section 2.3.2.

Finally, the last dimension of construal referred to by Langacker (2013a) is *perspective*. "If conceptualization (metaphorically) is the viewing of a scene, perspective is the *viewing arrangement*, the most obvious aspect of which is the vantage point assumed" (Langacker, 2008: 73, emphasis in original). In turn, a viewing arrangement is understood as the relationship between the 'viewers' (*i.e.*, speaker and hearer) and the 'situation which is being viewed', whereas the vantage point is defined as "the actual location of the speaker and hearer" (2008: 75). Logically, for linguistic purposes, the vantage point chosen does not necessarily have to coincide with the 'actual location of the speaker', but we can also "adopt a fictive vantage point and imagine what the scene would look like from there" (2008: 76). In fact, in doing so, it is possible to "describe a situation from the perspective of the hearer or some other individual" (2008: 76).

Hence, different construals of the same situation can be built depending on the vantage point chosen to describe a situation. Consider the following examples in this regard:

(176)   *I can't button the dress easily*.
(177)   *The dress buttons easily*. (enTenTen13 corpus, Concordance section, Sketch Engine)

Paraphrasing Langacker's (2008: 75) words, now applied to the explanation of examples (176) and (177) above, it can be observed that in (176) the speaker is profiled, as it is objectively construed by means of the presence of the first-person pronoun 'I', and the utterance might be understood as an invitation for the hearer to participate and help the speaker in the buttoning activity. In contrast, in the middle construction illustrated in

(177), the speaker is not a particular person but a generalized voice of authority (perhaps a viewer/experiencer of the situation, or even the seller or the fashion designer of the dress within a situational context of advertising). Regarding the issue of perspectivization in the middle construction, Yoshimura explains that

> the construal of a property in a designated entity is determined by how one 'perspectivizes' that entity in association with the setting. The Middle Construction thus serves as a conventionalized linguistic schema which can sanction an expression only to the extent that the perspectivization is motivated in accordance with the matching between the meaning of the verbs and their semantic association with the Subject nominals. (Yoshimura, 1998: 119)

Following this line of analysis, down below in Section 3.1.2, this 'matching' between the semantics of the verb and its relation with the meaning of the middle Subject is understood as the process of Cospecification. Besides, the fact that the middle structure is considered a 'conventionalized linguistic schema' will also be dealt with in detail in Section 3.1.2, whereby the adscription of a given structure as a middle expression will only be sanctioned by the semantic schema underlying the construction: [X (by virtue of some property P) IS SUBJECTIVELY ASSESSED BY THE SPEAKER AS BEING CONDUCIVE TO ACT], as already illustrated in Figure 4 in Section 2.3.2.

In addition, as the construal of the middle structure entails the high-level metonymic mapping (ACTUAL) PROCESS FOR (POTENTIAL) ACTION FOR SUBJECTIVELY ASSESSED RESULT, it is relevant to point at the fact that the cognitive *activation* of the target by means of the occurrence of the source is the most fundamental aspect of this metonymic process. In fact, "in every instance of metonymy a (sub)domain is mentally activated via another (sub)domain in the same ICM or domain" (Barcelona, 2011: 11-12; see also Langacker, 2013: 69). Remarkably, "[a] metonymic mapping affects the conceptualization of the target, which is now understood from the *perspective* imposed by the source" (Barcelona, 2011: 13; emphasis added). This perspectivation phenomenon is basically reflected in the middle construction by means of the pragmatic topicalization of the non-agentive participant and the demotion of the Agent.

The different dimensions of construal briefly presented here contribute in a way or another to the process of domain highlighting or activation occurring in the middle construction, as explored in the following section.

3.1.1. Domain highlighting or activation: *Qualia* structure in the middle

> *"A knife that cuts well has excellence; its virtue consists in the qualities that matter for its proper functioning, its design, the materials from which it is made, and the care with which it has been produced"* (Sketch Engine)

Our encyclopedic knowledge together with the dimensions of construal explored in the previous section contribute to the process of domain highlighting or activation of certain specifications of the referents. To better illustrate this idea, Langacker explains that, for instance, in the conceptual characterisation of the lexical item 'glass', some canonical domains are evoked in relation to its ordinary sense as an object designated as "a container which is used for drinking" (2008: 47), whereas other more peripheral domains are also evoked in relation to other inherent features of the entity 'glass'. As Langacker exposes (2008: 47), some of these central domains in relation to the ordinary sense of 'glass' are illustrated in (i) to (vi) below, whereas the peripheral domains are shown in (vii):

(i)   SPACE, a basic domain when referring to nominal entities.

(ii)   Material, generally the substance glass (although other materials are also possible, like plastic).

(iii)   Shape [subsumed under the SPACE basic domain], traditionally a cylinder closed at one end.

(iv)   Orientation [subsumed under the Shape domain], usually long dimension which is aligned along the vertical axis.

(v)   Size, mostly one which is easily held in one hand.

(vi)   Function, referring to both its role as a container for liquid and also its role in the drinking process.

(vii)   Other domains, for example, those dealing with price, washing, storage, breaking, dropping, method of manufacture, etc.

Langacker clarifies that "[a]ccording to the encyclopedic view of linguistic semantics, the potentially relevant domains are an open-ended set" (2008: 47); and more precisely, the fact that the speaker conceptualizes a given domain/group of domains as more cognitively salient in a particular situation is a matter of degree, since the property 'centrality' involves the probability of a particular domain to be activated or accessed whenever a linguistic expression is uttered on a particular occasion (2008: 48). Therefore, consider the following instances in this regard:

(178) *He took another sip from his glass*.

(179) *This antique glass is quite fragile*.

(180) *Plastic wine glasses are hard to wash*. (Langacker, 2008: 49)

Example (178) leads to a canonical construal of 'glass', as domains (i) to (vi) listed above are easily accessed. On the contrary, instances (179) and (180) induce peripheral construals of 'glass', given that domains of lesser centrality (breaking and washing, respectively) are activated. Consequently, the access to a domain or set of domains regarding a particular lexical unit is a cognitive process which works preferentially, *i.e.*, enabling some domains to be activated more likely than others depending on different factors like contextualization and usage (Langacker, 2008: 49). Remarkably, contextual information can defocuse canonical domains in favour of other more peripheral ones, as it happens in examples (179) and (180) above.

As Taylor writes, "the comprehension of any linguistic expression, even the most banal, requires *the activation of appropriate encyclopedic knowledge*" (1995: 91). Hence, the question that arises when examining the middle construction is what '*appropriate encyclopedic knowledge*' means and how it is cognitively activated. In this respect, according to Cortés-Rodríguez and Mairal Usón (2013), the meaning of a predicate does not only rely on the logical structure associated to it, but it also depends on another semantic module known as *qualia* structure (*cf.* Pustejovsky, 1991, 1995; Yoshimura, 1998; Yoshimura and Taylor, 2004). These *qualia* are idiosyncratic features that "structure our basic knowledge" about an entity (Pustejovsky, 1991: 427), and they are further examined and classified down below in this section. As Yoshimura writes,

> [t]he notion of *qualia* roles is ultimately based on the idea that there is a system of relations that characterizes the semantics of nominals. The *qualia* structure of a nominal embodies a system of *information which is evoked in relation to our conventionalized,*

encyclopedic knowledge of an object, playing a significant role in cospecification phenomena.[144] In other words, *the qualia structure serves to specify the reading of a verb*. (Yoshimura, 1998: 115; emphasis added)

By regarding the notion of *qualia* structure as a mode of explanation that is latent in the semantics of nominal referents and which can be related to the semantics of verbal predicates, Cortés-Rodríguez and Mairal Usón make use of the notion of *qualia* structure to account for "the set of semantic constraints by which we understand a word when embedded in the language" (2013: 224). Remarkably, the authors (2013: 226) relate the cognitive phenomena of foregrounding, focalising prominence and perspectivization (*i.e.*, the dimensions of construal) with the foregrounding of a certain *quale* (or some *qualia*). As the authors propose,

> [i]ndividual *qualia* compete for projection, and there are mechanisms such as foregrounding and 'focalizing' a single quale (…). Depending on which quale is foregrounded a given predicate will have a specific syntactic realization, *i.e.*, foregrounding is in fact the effect of the cognitive operations that act as external constraints. (Cortés-Rodríguez and Mairal Usón, 2013: 226)

Therefore, when examining the middle construction, a parallelism between these two elements can be established: (i) Langacker's notions of 'domain' and 'centrality' (including the extralinguistic factors that may alter the latter); and (ii) the notion of *qualia* structure.[145] In other words, following Cortés-Rodríguez and Mairal Usón (2013), Yoshimura and Taylor (2004) and Yoshimura (1998), in this dissertation it is proposed the following: the specifications *or domains* (in the sense of Langacker (2008) and Taylor (1995: 84)) that are accessed or activated in a given situation (and thus become more salient in a particular occasion) are understood here in terms of the *qualia structure* of the nominal entity working as middle Subject, as detailed hereunder.

First, let us point at the intrinsic features of the different *qualia*. Drawing upon Pustejovsky's (1991, 1995) ideas, Yoshimura (1998) and Yoshimura and Taylor (2004)

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[144] The process of Cospecification is examined in Section 3.1.2.

[145] Of course, there is not a complete overlap between the notions of 'domain' (Langacker, 2008) and 'qualia' (Yoshimura, 1998), however, they seem to refer to the same type of cognitive process to conceptualise and categorise a nominal lexical unit. In addition, the concepts of 'centrality' (Langacker, 2008) and the process of 'Compositional Cospecification' (Yoshimura, 1998) seem to be portrayed as close operations in the building of the construal of a situation in cognitive terms, as explained in this section.

explore the specification of the nominal entity construed as Subject in the middle structure into four different *qualia* roles: Constitutive, Formal, Telic, and Agentive, which are characterized as follows:[146]

First, the *constitutive qualia* (Q_C) refer to "the relation between an object and its constituents, or proper parts" (Pustejovsky, 1991: 426). That is, they deal with the "internal constitution of an entity" or "what it is made of, what its various parts are, how they function, and how they are interrelated" (Yoshimura and Taylor 2004: 306). Consider the following examples in this regard:

(181) *This dress buttons at the back, so she needs help putting it on.*

(182) *Dogs are very sensitive to loud noises and some startle easily.* (enTenTen13, Concordance section, Sketch Engine)

In example (181) above, the referent 'dress' has been designed as containing buttons (rather than, for instance, a zipper). This constituent of the referent 'dress' activates the Q_C structure of the entity in relation to the semantics of the verbal predicate. In addition, in example (182) above, the conceptual-semantic relation existing between the middle Subject 'dogs' (a +Animate entity)[147] and the verbal predicate 'startle' allows the activation of a particular *qualia* structure whereby the Q_C is the most relevant feature or domain highlighted. In the case of +Animate entities, the internal constitution of the referent also involves their psychological features and their personality traits (in the case of humans) and their etological characteristics (in the case of animals) (*cf*. Palma Gutiérrez, 2021: 116). Therefore, 'dogs' are characterised by their sensitive and startling intrinsic nature when it comes to loud noises.

Second, the *formal qualia* (Q_F) would refer to how an entity differentiates from others "within a larger domain" (Pustejovsky, 1991: 427), by analysing parameters such as "orientation, magnitude, shape, dimensionality, colour, position" (Pustejovsky, 1991: 427). Consider examples (183) and (184) in this regard:

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[146] Even though in this dissertation the understanding of *qualia* structure is based on Pustejovsky's (1991, 1995) ideas, the account given here differs in some respects from Pustejovsky's. Therefore, although certain *qualia* might be considered as central to a given conceptualization, *qualia* structure is not regarded here as a fixed property of the semantic representation of a lexical item. In fact, contextual information is capable of enriching the *qualia* structure of a nominal referent, as explained down below in this section.

[147] See Section 3.1.3.1 for a complete account on Experiencer +Animate Subjects with *emotion* verbs in the middle construction.

(183) *Wool shrinks easily when warm and wet.*

(184) [About a particular type of <u>knife</u>] *I love the paring knife, good size, easy grip (I have arthritis) and it really does the job on meats and veggies. <u>Fits well in hand and cuts smoothly</u>.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In example (183) above, the formal domain of *dimension* is activated when the conceptual-semantic relation between the nominal 'wool' and the verb 'shrink' is established.[148] Similarly, in example (184) above, the conceptual-semantic relation between 'blade' and 'fit' allows the activation of the Q_F structure in that the semantics of the verbal predicate helps specify the meaning of the referent by virtue of its dimensions or formal features. Additionally, the Q_T structure which connects 'knife' and 'cut' in (184) above is examined down below, now illustrated as (186).

Third, the *telic qualia* (Q_T) refer to the "purpose and function of the object" (Pustejovsky, 1991: 427); in other words, the usage or ultimate purpose of an entity and how an Agent interacts with it. Consider the following examples in this regard:

(185) *What does not deserve praise, however, is the fact that he tends to be inconsistent in his choices, treats semantically and etymologically similar names in different ways, translates some telling names and leaves others in the original form, includes some telling names in the glossary and leaves out others. Despite this drawback, <u>the translation reads well</u>, and the immense popularity of all Harry Potter books in Poland reflects well on its quality.*

(186) [about a <u>knife</u>] *I love the paring knife, good size, easy grip (I have arthritis) and it really does the job on meats and veggies. <u>Fits well in hand and cuts smoothly</u>.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In example (185) above, the conceptual-semantic relation that exists between the referent 'translation' (referring to a book) and the verbal predicate 'read' activates the Q_T structure of the nominal in relation to the semantics of the verb. Accordingly, the conceptual-semantic relation between 'knife' and 'cut' in (186) above entails the

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[148] In addition, the fact that entity 'wool' shrinks with ease is also due to the Q_C structure of the nominal, since it is precisely the internal composition of this entity which facilitates the shrinking process. This implies that *qualia* can co-occur, enriching the construal of the situation. See also Yoshimura (1998) in this respect.

activation of the Q_T structure in that the final purpose of a blade is to be used to cut something else.

Finally, the *agentive qualia* (Q_A) refer to the "factors involved in the origin or 'bringing about' of an object" (Pustejovsky, 1991: 427). Consider the following examples in this regard:

(187)   [about a type of kid's furniture toy gift] *Outdoor Sandbox assembles easily with instructions.*

(188)   *And as well all know, <u>Shakespeare sells</u>.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Example (187) illustrates what Cortés-Rodríguez and Mairal Usón (2013: 235) understand as 'agent quale middles'. In addition, as defended in this dissertation, example (188) shows another type within the same class of middles. The fact that the entity referred to in (187) above 'assembles' relies on the domain of constructing/assembling/building. Thus, the creation verb occurring in (187) specifies the semantics of the nominal referent by activating the Q_A structure. That is, the semantics of the verb denotes the process of production of the referent. Similarly, a different factor involved in the origin or bringing about of the nominal referent is highlighted in (188). In this case, it is the reputation of the author as the impeller of the action.[149]

Here a metonymic process by which the entity 'Shakespeare' is used to refer to his works of art is assumed. This is a case of the 'AUTHOR FOR AUTHOR'S WORK' metonymic schema (see Barcelona, 2011:11). The conceptual-semantic relation existing between Shakespeare's works and the verbal predicate 'sell' does not seem to be directly associated. However, a proper contextual situation could enrich this relation, connecting them by virtue of the reputation and the renown of the author, thus entailing a successful selling process. See Section 3.1.3.3 for a complete account on 'sell' middles and how the proper situational context can enrich the construal of the situation, hence allowing the activation of the Q_A specification as (one of) the most relevant domain(s) highlighted.

It seems that the idea behind the theory of *qualia* structure would, in fact, coincide to a certain extent with Langacker's notion of the content provided by a domain or set of domains within a lexical unit. As Yoshimura writes, "[q]ualia roles in general (…) are the

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[149] See Section 3.1.3.3 for a detailed account on middles with the predicate 'sell' (and other similar verbs).

specifications of conventionalized information typically evoked with the semantics of referential objects" (1988: 124, emphasis added).

In order to illustrate the parallelism between Langacker's (1987, 2008) and Taylor's (1995) notion of 'domain highlighting' and the idea of the *qualia* structure, a correlation between the above-listed specifications for the entity 'glass' and their correspondent *qualia* analysis is provided here.[150] Therefore, the entity 'glass' can be analysed as follows: a) the domain 'material' (listed as (ii) above) would coincide with the constitutive *qualia* (Q_C) of 'glass'; b) the formal *qualia* (Q_F) would subsume domains like 'shape' (listed as (iii) above), 'orientation' (listed as (iv)), and 'size' (listed as (v) above); c) the telic *qualia* (Q_T) would refer to the domain of 'function' (listed as (vi) above); and finally, d) the agentive *qualia* (Q_A) would involve, for instance, a domain like 'method of manufacture' (listed as (vii) above).

Which domain is activated or highlighted on each occasion will depend on the construal of the situation. In fact, in the construal of an entity, "the various *qualia* are not all of equal status. In characterizing an entity, some *qualia* but not others are regarded as more intrinsic to a definition" (Yoshimura, 1998: 120). Hence, as Yoshimura and Taylor write, "*qualia* structure is relevant to semantic composition, in that qualia-based knowledge can be selectively activated according to context" (2004: 306). Hence, this idea would coincide with Langacker's notion of the centrality of the domains involving the conceptual content of a lexical unit. As mentioned before, "centrality (preferential access) is a matter of degree and subject to being overridden by contextual factors" (Langacker, 2008: 39). The analysis of contextual factors will be thoroughly addressed in Section 3.1.2 in relation to the process of Compositional Cospecification occurring in the middle construction (see also Yoshimura, 1998; and Yoshimura and Taylor, 2004: 311).

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[150] Nevertheless, the basic domain SPACE does not have a unique correspondent analysis in terms of *qualia* structure. Instead, Langacker's notion of SPACE would be chiefly subsumed under certain specifications within the Q_C and the Q_F roles in Pustejovsky's theory of *qualia* structure. Consider, for instance, the domain SPACE for the lexical unit 'car'. In terms of *qualia* structure, the Q_F would refer to some specifications like the magnitude, shape, and dimensionality of the entity, together with the Q_C which would refer to the weight of the car, for instance. Thus, all of these specifications would be implied by the notion of SPACE, since a car, by virtue of the 'space' it occupies, possesses a given magnitude, a particular shape, it is characterised by certain dimensions, and it has weight.

3.1.2. Compositional Cospecification in the middle prototype category

"Mercedes-Benz C280: ($ 34,900). *Drives like it's made from one solid part rather than 1,000 different pieces"* (Sketch Engine)

Along the lines of Pustejovsky (1995: 87), Yoshimura claims that "lexical knowledge contains information which not only structures our knowledge of words, but also 'suggests' interpretations of words in context" (1998: 113-114). Therefore, in the case of the middle construction, our encyclopedic knowledge of the nominal referents contributes to the specification of an appropriate interpretation of the verbal predicates in context. In this respect, Cortés-Rodríguez and Mairal Usón explain that

> middles will be licensed only insofar as there is a proper semantic matching between the verb's meaning and one of the *qualia* of its subject. Furthermore, middle subsumption will be motivated by a process of semantic composition between the subject and the verb; that is, between the *qualia* of the nominal and the verb semantics. (2013: 234)

This idea of 'matching' coincides with Yoshimura's (1998) and Yoshimura and Taylor's (2004) notion of Cospecification in the middle construction, by which "semantic information of the complement (of a verb) contributes to the specification of a unique and appropriate meaning of the verb" (Yoshimura, 1998: 114). This is based on the idea that "just as a verb can select for an argument-type, an argument itself is able to select the predicate that governs it" (Yoshimura, 1998: 114).

Semantically, the notion of 'Cospecification' stands for the converse of 'Coercion' (*cf*. Yoshimura, 1998: 117).[151] According to Yoshimura, "[t]he term Coercion is used to refer to the phenomenon that the environment in which a word occurs can determine a specific reading of that word" (1998: 116). Therefore,

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[151] As further explored in section 3.2, the fact that the processes of Cospecification and Coercion are considered as converse relationships of each other is "an evidence for the existence of the symmetry in the underlying structure of the nominal and the predicate in the middle construction" (Palma Gutiérrez, 2019a: 173).

[j]ust as nominal *qualia* roles serve to specify an appropriate reading for a verb (Cospecification), so can verbs specify an appropriate meaning for a nominal (Coercion). These two phenomena should not be distinguished as separate or independent, but should be considered as two sides of the same coin in that both contribute to the semantic disambiguation of co-compositionality processes between elements. In both cospecification and coercion, the *Qualia* Structure of nominals works as a pivot in identifying the target interpretation of an expression.[152] (Yoshimura, 1998: 117)

Once established that the processes of Cospecification and Coercion are semantically converse in that they complement to each other,[153] consider the following instances with regard to the notion of Coercion:

(189) *This car drives well.*

(190) *This car handles well.*

(191) *The car parks well.*

(192) *These cars sell well.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In the above examples, the meaning of the verbal predicates 'drive', 'handle', 'park' and 'sell' *coerce* the interpretation of the nominal 'car/cars'. In (189) and (190) above, 'drive' and 'handle' force a specific interpretation of the 'car' in question with respect to its telic value or function (Q_T). For its part, in example (191), the meaning of the verb 'park' evokes another facet of the car, basically related to its formal features or dimensions (Q_F). Finally, in example (192), the nominal 'cars' is coerced by the semantics of the predicate 'sell' in terms of being construed within a situational context involving a product in the transactional frame (Q_T together to other *qualia*, like Q_A).[154] Accordingly, the meaning of these verbal predicates ('drive', 'handle', 'park' and 'sell') serve to *foreground* the nominal 'car/cars' with respect to a particular *quale*. Then, as Yoshimura explains, "the *Qualia* Structure of nominals provides the basis of predication in identifying the target interpretation of these expressions" (1998: 117).

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[152] See Section 3.2. for a detailed account on how the processes of Cospecification and Coercion are identified as 'two sides of the same coin' and how they contribute to the idea of the symmetry in the underlying structure of the middle Subject and the verbal predicate.

[153] See Section 3.2. for a detailed analysis of the symmetrical relationship between the processes of Cospecification and Coercion in the middle construction.

[154] See Section 3.1.3.3 for a complete account on 'sell' middles and their *qualia* structure.

This is how the process of domain highlighting functions when the meaning of the nominal is specified according to the semantics of the predicate in the middle construction. However, in this dissertation, a more complex process is examined; one in which the semantic value of the adverb is in compositional analysis, motivating a shift in semantic importance (at least in some types of middles within the prototype category, as detailed in the following paragraphs). This complex process is named *Compositional Cospecification*, as it is based on the semantic analysis of the different elements (nominal, predicate, and adjunct) which compose the middle structure.

Remarkably, Yoshimura argues that "the Middle Construction schema functions to foreground some semantic aspects of verbs that contribute to the specification of certain properties of the Subject referent" (1998: 117). In addition, the typical occurrence of adjuncts in middle structures also contributes to the specification of this salient property of the nominal referent. That is, the property ascribed to the middle Subject in cospecification with the semantics of the predicate is not solely the speaker's assessment of its conduciveness to the action denoted, but rather the speaker's assessment of its conduciveness *in the way specified by the adjunct* (*cf.* Yoshimura and Taylor, 2004: 296).

In this way, as it is proposed in this dissertation, a given structure will be sanctioned as a middle expression only to the extent that the semantic co-compositionality (Cospecification/Coercion) between the *qualia* structure of the nominal referent and the meaning of the verbal predicate, together with the addition of the semantic value of the adjunct, is fully compatible with, and thus instantiates, the semantic schema of the middle construction: [X (by virtue of some property P) IS SUBJECTIVELY ASSESSED BY THE SPEAKER AS BEING CONDUCIVE TO ACT].[155] Hence the 'property P' mentioned above refers to the nominal's *qualia* structure. In this respect, Yoshimura maintains that

> [i]n middles, (…), it is required to attribute a property reading to the Subject entity; that is, *some intrinsic (or more stable) property of the entity must be specified, in association with the semantics of the predicate verbs and adjuncts*. Cospecification in middles thus needs to be achieved, so that *Constructional coercion* can be made to give rise to a property reading. (Yoshimura, 1998: 128; emphasis added)

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[155] See Section 2.3.2, Figure 4.

This idea of 'Constructional Coercion' (*i.e.*, that the middle construction forces a specific reading of the predicate in accordance with its semantic schema) contributes to the prototype effects of the middle construction,[156] and therefore, it also offers an explanation for the necessity of a family-resemblance relation among the different members of the middle spectrum. In other words, the process of Compositional Cospecification is flexible enough to accommodate prototypical and peripheral/marginal instances within the middle prototype category, provided the semantic schema of the middle construction is instantiated (*i.e.*, provided the process of Constructional Coercion is attained). Apart from the semantic schema above-mentioned, middability also depends on the attainment of the pragmatic schema and the cognitive mapping discussed in Section 2.3.2, in Figure 4.

Besides, certain contextualization factors can also enhance the process of subsumption, leading to the foregrounding of a particular quale (*cf.* Yoshimura, 1998: 131), as detailed in Section 3.1.3.3 in the case of 'sell' middles. Therefore, by examining the process of Compositional Cospecification throughout the family-resemblance schema provided in this dissertation, it can be explained why some *qualia* roles become more salient and thus more cognitively accessible in a given situation encoded as a middle structure, as detailed hereunder.

In the case of the middle construction, according to Yoshimura (1998: 119-120) and Yoshimura and Taylor (2004: 307), the most prominent *qualia* are Q_T and Q_C. In this regard, following Pustejovsky's (1991, 1995) observations on the role of *qualia* in semantic composition, Yoshimura and Taylor argue that

> knowledge pertaining especially to the internal constitution of a thing (its QC), in relation to its intended purpose (its QT), is crucially involved in the acceptability and interpretation of middle expressions. (2004: 308)

Even though they do not refer to the concept of *qualia* structure, scholars like Davidse and Olivier (2008: 181) and Rosta (1995: 132) also address this same issue in a more indirect way. For example, when commenting on the sentence '*The book read quickly/easily*', Rosta (1995: 132) explains that,

> [the fact] that the reader could read the book at all is most likely contingent on properties of the reader, such as literacy, but that reading was quick or easy is relatively more likely

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[156] *Cf.* Goldberg (1995: 9) and Taylor (1997).

contingent on properties of the book, such as clarity and liveliness of style. (Rosta, 1995: 132)

In other words, the 'reader' (identified as the implicit Agent in this case) involves the telic *qualia* mode (Q_T) of the entity 'book', (*i.e.*, literacy, the reader's ability to read, since books are made to be read). There is a shift in semantic weight from telic to constitutive *qualia* modes ($Q_T \rightarrow Q_C$) when adding the semantic value of the adjuncts 'quickly/easily' in compositional analysis, since they involve the intrinsic features of the entity 'book', such as its 'clarity and style'. These intrinsic features of the book in question are assessed by the speaker as being conducive to the action denoted in a quick/easy way. In this regard, Davidse and Olivier comment that

> middles stating that some entity 'reads or does not read well' may contextually refer to such various properties as the content, organization or style of a text, as well as to aspects of the layout such as font, etc. It is these inferred properties that are pragmatically central to the subjective evaluation conveyed by the middle […] [Therefore, the adjunct] specifies what aspects of the verbal process (ease, result, etc.) the qualities of the subject are conducive to. (2008: 181)

In a similar fashion, Yoshimura (1998: 124) points at the idea that the semantic cospecification of most middle nominals and predicates is based on a telic relation (Q_T). However, as the author explains, the incorporation of the semantic value of the adjunct tips the scales towards a constitutive value, hence foregrounding the inherent features of the nominal (its Q_C) as being subjectively assessed as conducive to the action and, consequently, backgrounding the role of the Agent (related to the Q_T). This idea is based on the assumption that the most productive type of Subject referents in middles are Inanimate entities (or 'artifacts', as Yoshimura (1998: 123) calls them), rather than Animate referents. Then, a telic mode is chiefly associated with the purpose of most middle nominals, provided that the prototypical middle Subject involves the notion of 'artifact', that is, "products created with a built-in aim or function" which are "understood typically with respect to the activities of (and the benefits for) a human Agent" (Yoshimura, 1998: 123) (also in Yoshimura and Taylor, 2004: 308-309). In addition, Yoshimura maintains that it is mandatory for middles with artifact Subjects to incorporate an adjunct, and this condition is "motivated by the shift of importance from Qt to Qc" (1998: 124).

Therefore, in line with this assumption, Q_T is relevant with respect to the process of semantic composition in the middle construction because it "refers to the notion of a purpose that an *agent* might have in performing an act, and that of a built-aim or function in terms of which we specify certain activities" (Yoshimura, 1998: 120; emphasis added). For its part, the constitutive *qualia* (Q_C) would involve a direct correlation between the subjacent letting modal value of the middle construction and the inherent properties of the middle nominal;[157] *i.e.*, the speaker's subjective assessment of the properties of the nominal entity as being conducive (or not) to the action denoted by the verbal predicate.

In synthesis, according to Yoshimura (1998: 124), in the process of semantic cospecification, the telic value (Q_T) is associated with the intervention of the implicit agentive participant, whereas the constitutive mode (Q_C) is associated with the letting modal value of middle Subject referents.[158] In compositional analysis, the assimilation of the semantic value of the adverb would foreground the intrinsic features of the nominal (its Q_C) against the abilities of any implied Agent in the carrying out of the process denoted (*i.e.*, the Q_T mode is backgrounded). According to this analysis, the process of Compositional Cospecification in the middle construction would follow the pattern $[Q_T \rightarrow Q_C]$.

However, as pointed at in Palma Gutiérrez (2021b: 164), some related questions arise at this point: to what extent does the process of cospecification work in the middle construction in the way Yoshimura (1998) and Yoshimura and Taylor (2004) claim? In other words, is it a mandatory condition to have a shift in semantic weight from telic *qualia* (Q_T) to constitutive *qualia* (Q_C) in the middle structure due to the incorporation of the semantic value of the adverb? What happens with adjunctless middles? And more particularly, what happens with other types of marginal middles? Let us start by examining adjunctless middles, also called feasibility-oriented middles (*cf.* Heyvaert, 2001 and 2003; Davidse and Heyvaert, 2007).

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[157] This issue was addressed in detail in section 2.3.1.1 of this dissertation.

[158] Yoshimura (1998) does not use the notion of 'letting modal value' (which is taken here from Davidse and Heyvaert, 2007). Instead, Yoshimura relies on the notion of 'responsibility' generally explored in the literature and by which the middle Subject is seen as being 'responsible for' the action denoted. As previously explained in different sections of this dissertation, the term 'responsibility' falls into the ergative fallacy; thus, the notions of 'letting modal value' and 'conduciveness' are preferred here so as to focus on the interpersonal nature of the middle construction and the role of the speaker's subjective assessment on the conduciveness of the inherent properties of the nominal to the action denoted.

Even though middles usually contain an adjunct, feasibility-oriented middles are also found at a relatively high frequency of occurrence and traditionally well-accepted among scholars. On the one hand, the traditionally ascribed role of adjuncts in middles is related to the Gricean maxim of informativity for the sake of implying a contrast between the middle Subject and other entities of the same kind (*cf.* Lemmens, 1998: 78; see also García de la Maza, 2013: 115-116). As Yoshimura and Taylor explain with regard to the sentence '*The car drives smoothly*',

> [a] bald statement that 'The car drives' would probably be rejected on account of its uninformativity, or lack of newsworthiness. That they drive (or, more precisely, that they are able to facilitate a driving-event) is an expected, if not an essential, property of cars; the property is, after all, an inherent design feature of cars. A car which was not designed to have this property would not, strictly speaking, be a car at all. That a car 'drives smoothly', on the other hand, may be a distinctive property of a particular car and one which distinguishes it from other cars. As such, this fact may be worth commenting upon. (2004: 296)

However, the grammaticality judgments for middlehood are subject to the attainment of the constructional coercion of the utterance; that is, the specification of a salient property of the nominal referent in association with the semantics of the predicate, according to the speakers' relevant background knowledge. Therefore, the lack of an adjunct in the middle construction (as it happens in feasibility-oriented middles) can be supplied in this way: even though feasibility-oriented middles (mostly occurring in the Simple Present) do not contain any adjunct in their syntactic projection, in semantic terms they imply a property reading by which a habitual/generic value is attributed to the inherent features of the nominal in cospecification with the predicate. As Marín Arrese writes in this respect, adjunctless middles are possible since they are "[g]eneralized universal statements about the potential event, evoking modal nuances" (2011: 11). Consider the following examples in this regard:

(193) *This travel umbrella folds up to a small enough size to stuff in your pocket or purse.*

(194) *This is a longer length jeans skirt by Forelli Denim. The skirt buttons so that is the only slit.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Examples (193) and (194) above indicate that the 'umbrella' and the 'skirt' in question have been designed in a way such that their intrinsic characteristics (their Q_C and Q_F) are assessed by the speaker as being conducive to the 'folding up' and the 'buttoning' events, respectively, *every time* any implicit Agent carries out the actions denoted. Hence, the telic value which would be associated with the purpose of being of an umbrella (*i.e.*, covering someone from the rain) and with a skirt (*i.e.*, wearing this piece of clothing) is not the most salient feature of the nominals in cospecification with their respective predicates in the contexts provided in (193) and (194). Rather, their Q_C and Q_F modes are foregrounded, since they provide a basis of predication to cospecify the semantics of the predicate 'fold up' and 'button', respectively.

Particularly, in both cases, the Q_C mode is one of the domains highlighted in that it relies on the constituents or proper parts of the 'umbrella' and the 'skirt' in question, which have been designed as containing certain elements to facilitate the folding and the buttoning events, respectively. In addition, the Q_F mode is also cognitively accessed in both examples, contributing to the distinction of the nominal referents from other related entities within a larger domain. In the case of (193) above, the Q_F mode is accessed because the domain of size is evoked in such a way that the 'umbrella' in question can be distinguished from other umbrellas. In fact, having such dimensions is a positive feature of '*travel* umbrellas', since their small size helps the travellers carry their luggage more comfortably. In contrast, in general terms, in non-travelling contexts, bigger umbrellas are more positively valued by their users because their function (*i.e.*, covering someone from the rain, its Q_T mode) is better attained. Similarly, in the case of (194), the contextually invoked properties of the skirt in question (namely, its formal features (Q_F) related to its long length) allows a comparison with other similar entities.

Hence, in examples (193) and (194) above, the lack of an adjunct implies that no shift of semantic weight occurs in the process of Compositional Cospecification. Consequently, the pattern in both cases would follow the complex schema $[Q_C+Q_F \rightarrow Q_C+Q_F]$.

Thus, in order not to violate the Gricean maxim of informativity, feasibility-oriented middles do not foreground the Q_T structure of their nominals in cospecification with the semantics of their predicates. Instead, they foreground other *qualia* modes which contribute to a property reading of the nominals, hence motivating a distinction between the middle Subject referents and other similar entities. Provided this type of middles do

not contain any adjunct, no shift in semantic importance from a telic to a constitutive value occurs. Therefore, in feasibility-oriented middles, the lack of an adjunct is supplied with a proper contextualization which serves to predicate a property reading of the Subject (*cf.* Yoshimura, 1998: 121).

The question that arises now is the following one: if there is lack of shift in semantic importance in feasibility-oriented middles, is it possible to find different patterns in Compositional Cospecification within the members of the family-resemblance schema provided in Section 2.3.2? In other words, how do *qualia* roles interact in the process of Compositional Cospecification in the case of central and peripheral middles within the prototype category? Are there differences in the analysis of the semantic composition when comparing action-oriented and ergative-like middles?[159] What about their metonymically-motivated extensions? These questions are dealt with in the following section.

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[159] Feasibility-oriented middles can occur with both, action-oriented structures (for instance, those incorporating verbal predicates like 'fold up' and 'button', as in examples (193) and (194) above) and also ergative-like structures (like these ones: '*The leaf floats*' and '*Glass recycles*').

3.1.2.1. Non-prototypical patterns in the process of Compositional Cospecification

> *"Available in either lavender or green, this mat is perfect for yoga,*
> *pilates, stretching, abdominal exercises and other floor exercises as*
> *part of your fitness routine. At 1/2-inch thick, this double-sided mat*
> *provides excellent support and comfort, and rolls easily for storage*
> *and carrying with the removable strap"* (Sketch Engine)

As illustrated in this section, the prototype effects of the middle prototype category also influence the process of Compositional Cospecification found in the different types of middles proposed here. Thus, the family-resemblance analysis of the middle construction previously shown in Section 2.3.2 is also contingent on the differences examined in this section in terms of *qualia* structure and compositional analysis.

As explained previously, regarding the aspectual and semantic properties of these structures, ergative-like middles incorporate verbs that specify *how the change of state proceeds*, like 'break', 'cut', 'open', and 'close'. On the other hand, action-oriented middles incorporate verbs that *specify the manner of action*, such as 'drive', 'handle', 'read', and 'translate' (*cf.* Sakamoto, 2001: 101).

Hence, action-oriented middles foreground the intervention of the implicit agentive participant regarding the action denoted by the verb at a higher level, whereas ergative-like middles profile the affectedness of the Patient. Therefore,

> the lack of affectedness in the nominal referents in action-oriented middles leads to the conclusion that they do not belong to the prototypical class of middle Subjects (*i.e.,* Patients). In fact, pragmatically, they would involve a type of entity that could be identified with an Enabler more than with a Patient. (Palma Gutiérrez, 2021b: 165-166)

Still, due to the prototype effects of the middle construction, as explained in Section 2.3.2, both Patient and Enabler-Subjects are acceptable. Consider examples (195) and (196) below in this regard, which represent, respectively, an instance of an action-oriented

middle with an Enabler Subject, and an instance of an ergative-like middle with a Patient Subject:

(195) *The Sebring is a very capable cruiser and drives smoothly.*

(196) *Plastic is a very cheap material, it breaks easily.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Significantly, the process of Compositional Cospecification is also different in these two types of middles. On the one hand, action-oriented middles (like (195) above) are represented by the generally accepted pattern [$Q_T \rightarrow Q_C$] (*cf.* Yoshimura, 1998). For example, in the case of (195) above, the cospecification of the nominal 'car' in accordance with the semantics of the verb 'drive' points out a telic mode (Q_T) (*i.e.*, the function of a car is to be driven). Besides, the incorporation of the semantic value of the adjunct 'smoothly' provokes a shift to the car's constitutive mode (Q_C). Hence, the fact that 'the car drives *smoothly*' has to do with the internal parts of the car (like the wheels, the engine, the braking system, etc.), regardless of the skills of any implicit Agent. Therefore, in compositional analysis, the constitutive *qualia* mode is foregrounded over the telic *qualia* mode in (195) above, revealing the pattern [$Q_T \rightarrow Q_C$] in Compositional Cospecification.

However, ergative-like middles (as (196) above) undergo another schema in Compositional Cospecification. In this case, no shift in semantic weight occurs, despite the Inanimate nature of the Subject referent ('plastic'). In fact, the Q_C mode is preserved throughout the process of Compositional Cospecification and is intensified by the semantic value of the adverb ('easily'). This is so because there is lack of a telic connection between the entity 'plastic' and the verb 'break'. So, the fact that 'plastic breaks' at all is considered as a generalization on the natural disposition of the plastic material because of its inherent properties (its Q_C). In addition, this condition is intensified by the semantic value of the adverb 'easily'. Hence, the fact that plastic breaks *in an easy way* is the result of its natural disposition to do so. In short, ergative-like middles like (196) above background the intervention of the implicit agentive participant and foreground the intrinsic features of the Patient. Therefore, as proposed here, ergative-like middles as (196) above undergo the pattern [$Q_C \rightarrow Q_C$] in the process of Compositional Cospecification (*contra* Yoshimura, 1998).

Accordingly, due to the prototype effects of the middle construction, related but not necessarily identical schemas will be found in the metonymically-motivated extensions of each central type of middle. Consider the following examples in this regard:

(197) *Karkarook Park Lake fishes well during May.*

(198) *This music dances well.*

(199) *The top-quality rods from Montague fish well.*

(200) *Deer are always alert and frighten easily.*

(201) *The saw cuts like a dream.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Examples (197) – (199) are instances of metonymically-motivated extensions of prototypical action-oriented middles, whereas examples (200) and (201) are metonymically-motivated extensions of prototypical ergative-like middles. As stated in Palma Gutiérrez (2021b: 167), Locative and Means-Subject middles like (197) and (198) above, respectively, as well as Circumstance-of-Instrument middles like (199) above, reflect the lack of affectedness featuring prototypical action-oriented middles. On the other hand, Experiencer-Subject middles like (200) above incorporate affected entities as prototypical ergative-like middles do. The difference is that Experiencer-Subject middles contain an +Animate entity, whereas prototypical ergative-like middles include an Inanimate entity as Subject. In the case of Agent-Instrument middles, however, patienthood is not directly met as in prototypical ergative-like middles, as illustrated in (201) above. This is so because Agent-Instrument middles represent another portion of the action chain. For example, the 'saw' in (201) is not patientive since it is not an affected entity. In fact, it is an instrument manipulated by the implicit agentive participant to affect another entity (the implied Patient) by cutting it (*cf.* Palma Gutiérrez, 2021b: 167).

These significant distinctions are also manifested in the processes of Compositional Cospecification occurring in these extensions of the prototypes. On the one hand, the three types of metonymically-motivated extensions of the action-oriented middle (*i.e.*, Locative, Means, and Circumstance-of-Instrument middles) follow the pattern [$Q_T \rightarrow Q_C$]. On the other hand, Experiencer-Subject middles follow the pattern already assumed for prototypical ergative-like middles (*i.e.*, [$Q_C \rightarrow Q_C$]). Significantly, the other type of metonymically-motivated extension of the ergative-like middle (*i.e.*, the so-called Agent-Instrument middle) does not follow this pattern in Compositional Cospecification. Remarkably, they instantiate the schema found in action-oriented

middles ($[Q_T \rightarrow Q_C]$). Therefore, Agent-Instrument middles profile the intervention of the implicit Agent and they imply a patientive entity being affected. These issues are briefly addressed here but further elaborated in the following subsections.[160] Consider Figure 6 below, where the family-resemblance analysis of the middle construction is complemented now with a distribution of their corresponding schemas in Compositional Cospecification:

MIDDLE PROTOTYPE CATEGORY

Action-oriented middles

Lack of affectedness
Enabler Subject
Action-oriented verb

(*This car drives smoothly*)
$[Q_T \rightarrow Q_C]$

Ergative-like middles

Affected entity
Patient Subject
Ergative-like verb

(*Glass breaks easily*)
$[Q_C \rightarrow Q_C]$

Metonymically-motivated extensions
(Oblique-Subject middles)
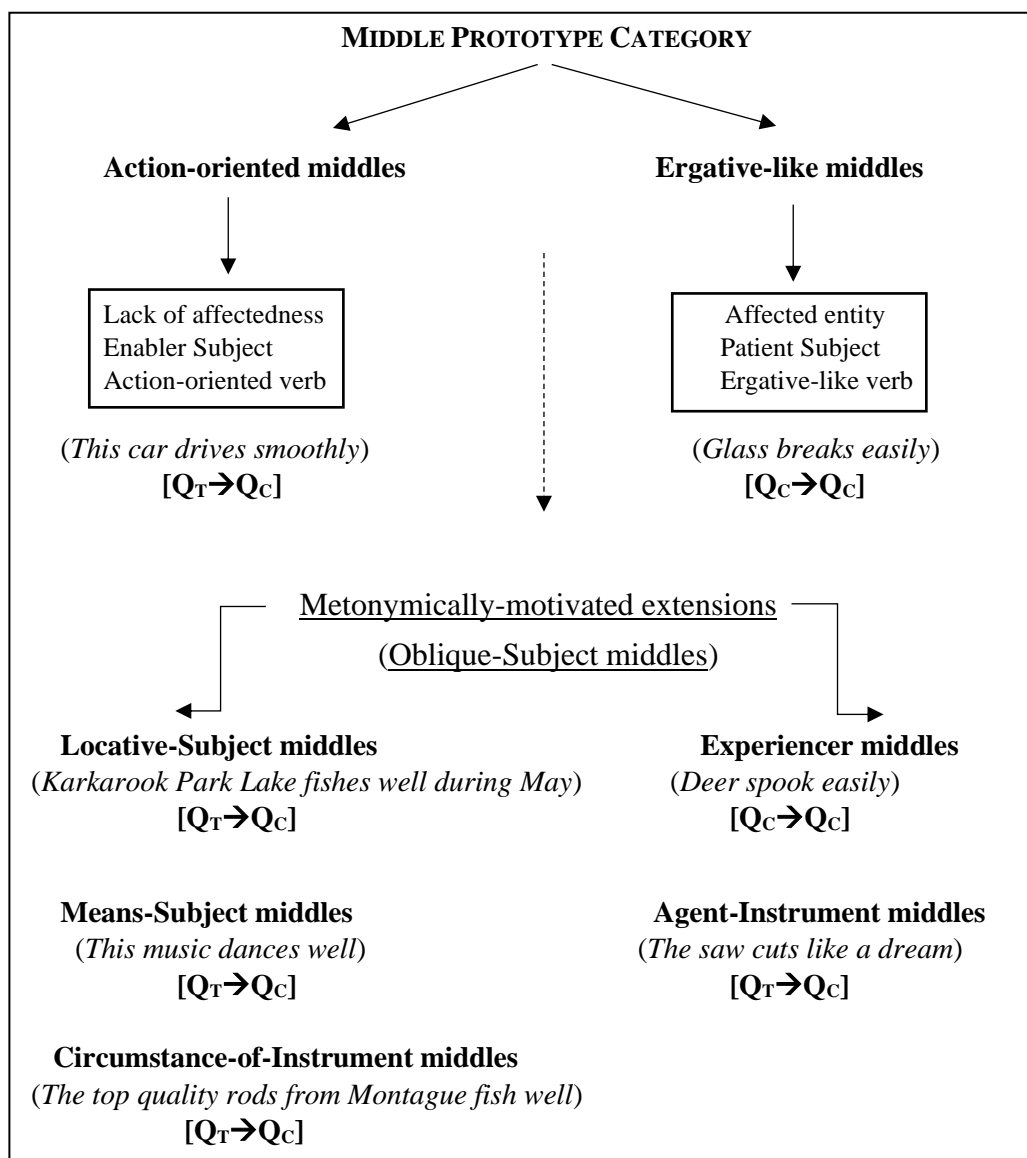
Locative-Subject middles
(*Karkarook Park Lake fishes well during May*)
$[Q_T \rightarrow Q_C]$

Experiencer middles
(*Deer spook easily*)
$[Q_C \rightarrow Q_C]$

Means-Subject middles
(*This music dances well*)
$[Q_T \rightarrow Q_C]$

Agent-Instrument middles
(*The saw cuts like a dream*)
$[Q_T \rightarrow Q_C]$

Circumstance-of-Instrument middles
(*The top quality rods from Montague fish well*)
$[Q_T \rightarrow Q_C]$

Figure 6. Family-resemblance analysis of the middle construction in terms of its process of Compositional Cospecification[161]

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[160] In addition, following a usage-based methodology, Chapter 4 is devoted to a quantifiable distribution of the family of constructions provided in this dissertation by showing the frequency of occurrence of each type of middle and examining the nature of the combined elements in the colloconstructional units (namely, the nominal Subject, the verbal predicate, and the adverbial modification).

[161] Adapted from Palma Gutiérrez (2021b: 168).

In the case of Locative-Subject middle shown in Figure 6 above ('*Karkarook Park Lake fishes well during May*'), certain contextually invoked properties of the 'lake' (like its crystalline-water condition in May, *i.e.*, its Q_C) are subjectively assessed by the speaker as being conducive to the fishing activity in the way indicated by the adjunct ('well'). In other words, "the cospecification of the nominal 'lake' with regards to the semantics of the predicate 'fish' relies on a telic value (Q_T)" (Palma Gutiérrez, 2021b: 169). Nevertheless, the addition of the semantic value of the adjunct 'well' provokes a shift in semantic importance from a telic to a constitutive *qualia* mode. Hence, the fact that 'the lake fishes *well*' relies on the intrinsic features of the lake in question, regardless of the skills of any implicit agentive participant. Thus, in compositional analysis, the Q_C mode is profiled over the Q_T, revealing the pattern [Q_T→Q_C] in Compositional Cospecification.

A similar conclusion can be drawn regarding the Means middle shown in Figure 6 above ('*This music dances well*'). In this case, although the process of cospecification between the nominal 'music' and the predicate 'dance' relies on a telic relation (Q_T), in compositional analysis the intrinsic features of the 'music' in question (namely, its swing, rhythm and beat, as compared to those of other types of music, *i.e.,* its Q_C) are seen as enabling the implied dancer to carry out the dancing activity in the way denoted by the adjunct ('well'), regardless of the abilities of any implicit Agent. Therefore, Means middles reveal the typically accepted pattern in action-oriented middles: [Q_T→Q_C].

Accordingly, the telic mode (Q_T) associating the nominal 'rod' and the predicate 'fish' in the Circumstance-of-Instrument middle shown in Figure 6 above ('*The top quality rods from Montague fish well*') gets defocused when the semantic value of the adverb 'well' is taken into account. Hence, in compositional analysis, the inherent properties of the 'rod' in question (its Q_C) are assessed by the speaker as letting the implied Agent to fish in the way indicated by the adjunct ('well').

In the case of the metonymically-motivated extensions from the ergative-like prototypical middle, there is no consistency between the members in terms of their schemas in Compositional Cospecification. In other words, the pattern [Q_C→Q_C] is only found in Experiencer-Subject middles, but not in Agent-Instrument middles. For example, in the Experiencer-Subject middle shown in Figure 6 ('*Deer spook easily*'), an intrinsic property of 'deer' (namely, a biological or etological feature by which they tend to frighten, *i.e.,* their Q_C) is assessed by the speaker as being conducive to the frightening event. Besides, "this natural condition is intensified by the value of the adjunct 'easily'

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without producing any shift in semantic importance in compositional analysis" (Palma Gutiérrez, 2021b: 169). Therefore, the pattern found in Experiencer-Subject middles is [$Q_C \rightarrow Q_C$]. As further examined in subsection 3.1.3.1, the schema found in Experiencer-Subject middles is due to the occurrence of +Animate entities as Subject referents.

On the other hand, in the case of the Agent-Instrument middle appearing in Figure 6 above ('*The saw cuts like a dream*'), certain features of the 'saw' in question (like its sharp edge (its Q_C)) are evaluated by the speaker as enabling the implicit Agent to perform the cutting event in the way specified by the adverb 'like a dream'. Nevertheless, Agent-Instrument and ergative-like middles differ in that, in the former, the cospecification between the nominal and the verb is based on a telic value (Q_T) which is lacking in prototypical ergative-like middles. Besides, in Agent-Instrument middles, the addition of the semantic value of the adverb provokes a shift in semantic weight towards the Q_C mode of the Subject referent, revealing the typical pattern in action-oriented middles (*i.e.*, [$Q_T \rightarrow Q_C$]). Hence, in Agent-Instrument middles, the constitutive *qualia* mode is profiled over the telic mode in compositional analysis, whereas in prototypical ergative-like middles, the Q_C mode is maintained throughout the process of Compositional Cospecification. In addition, in contrast to prototypical ergative-like middles, the nominal referent in Agent-Instrument middles is not an affected entity. For example, in the sentence '*The saw cuts like a dream*', "it is pragmatically implied that the saw in question is used by the Agent to affect another patientive entity by cutting it. Thus, another portion of the action chain is depicted here" (Palma Gutiérrez, 2021b: 169). This issue is further examined in subsection 3.1.3.2.

3.1.2.2. The case of Experiencer-Subject middles with verbs of emotion

> *"My lame attempt at an extended metaphor, which I feel there*
> *are a lot in Black Cat. Train's got the cat thing and I'm pinning*
> *the bird thing on you/angel because it's fun! Don't ask me*
> *why… I amuse easily"* (Sketch Engine)

Experiencer-Subject middles could be defined as those that take an +Animate entity as Subject referent in combination with a very restricted type of verb of emotion. According to Yoshimura (1998: 123), +Animate entities are those who refer to a human entity, animals, plants or planets.[162] In addition, the restricted set of verbs analysed here as *verbs of emotion* or *verbs of psychological state* are Levin's (1993: 189) class of '*amuse* verbs', as detailed below.

Levin's (1993: 189) class of *verbs of psychological state* or *psych-verbs* is divided into four different subgroups, from which only her set of '*amuse* verbs' meet the conditions to construct middle instances. As the author explains, this is due to the fact that the Experiencer entity coincides with the logical Object in the transitive variant, and also because the Stimulus entity coincides with the logical Subject in the transitive form (see also Croft, 1991). As Levin puts it,

> it is possible to distinguish four classes of *psychological verbs* in English: the members of two classes are transitive verbs, and the members of the other two classes are intransitive verbs taking prepositional phrase complements. The transitive *psych-verbs* are the most numerous. They fall into two classes according to whether the experiencer is the subject (the *admire* verbs) or the object (the *amuse* verbs). The intransitive psych-verbs fall into two classes according to whether the experiencer is expressed as the subject

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[162] Middles with +Animate entities as Subject in combination with verbs belonging to other than the class of *verbs of emotion* (*i.e.*, action-oriented structures like '*Mary doesn't photograph well*') do not form part of the metonymic extension of Experiencer-Subject middles, as explained in Section 2.3.2. According to Harnstenstein (2004: 26), +Animate middles are more productive when they incorporate a verb of emotion, since the psychological traits or mood of the entity reflect a certain feeling that implies a change of emotional state.

(the *marvel* verbs) or as the object of the preposition heading a prepositional phrase complement (the *appeal* verbs). (Levin, 1993: 189)

As mentioned previously, among these four types of psych-verbs, the set of '*amuse* verbs' is the relevant type for this dissertation since it is the only one which is middable (*cf.* Levin, 1993: 190).[163] The group of '*amuse* verbs' from Levin's (1993: 189-190) work that has been examined in this dissertation is composed by the 48 verbs listed below, as they were the most productive ones within their category in the corpus compiled here: *abash, alarm, amaze, amuse, anger, astonish, awe, boggle, calm, confuse, depress, disappoint, discourage, distract, embarrass, entertain, exasperate, excite, exhaust, fascinate, fluster, frighten, frustrate, impress, intimidate, obsess, offend, overwhelm, panic, provoke, relax, scandalize, scare, shock, spook, startle, stimulate, stir, stun, surprise, terrify, threaten, tire, unsettle, weary, worry,* and *wound*. Some instances compiled in the corpus belonging to the class of Experiencer-Subject middles are the following ones:

(202) *Deer are always alert and frighten with ease.*

(203) *Hamsters are timid in nature and scare easily.*

(204) *The trouble is, Deano doesn't discourage easily.*

(205) *Potential customers in Asia don't terrify easily.*

(206) *He is a reluctant reader, capable but frustrates easily.* (enTenTen13 corpus, Concordance section, Sketch Engine)

According to Yoshimura (1998: 123), the prototypical Subject entity in the middle construction is Inanimate, whereas those middles with +Animate entities are less frequent (1998: 137). As the author goes on to argue, this is so because the typical Inanimate entities imply a telic value (Q_T mode) in cospecification with the meaning of their corresponding predicates. In Yoshimura words, "[o]ne hardly finds any Qt in the definitions of natural objects like plants, animals, human beings, or planets" (1998: 123).

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[163] According to Cortés-Rodríguez and Mairal Usón (2013: 231), those psychological verbs belonging to the fields of perception and cognition are not middable. In contrast to *perception and cognition* verbs, *amuse* verbs project a process of change of state in which the degree of initiative and volition of the Experiencer is null and its degree of affectedness is higher. As Kemmer explains, "one has less control over the emotions than over one's thoughts or one's physical perceptions" (1993: 130). In fact, the set of *amuse* verbs involves a lower degree in volition because, in the transitive form, the logical Subject does not coincide with the Agent, but with the Stimulus of the emotion, and the logical Object coincides with the role of the Experiencer (*cf.* Levin, 1993: 189).

However, Yoshimura (1998) does not take into account the prototype effects of the middle construction, as demonstrated in the previous sections. Therefore, as previously mentioned, according to the ideas presented in this dissertation, Experiencer-Subject middles do not follow the traditionally accepted pattern [$Q_T \rightarrow Q_C$] in Compositional Cospecification due to the lack of a telic value connecting the meaning of the verb in relation to the semantics of the nominal entity. Instead, their lack of semantic shift in the process of Compositional Cospecification leads to the formula [$Q_C \rightarrow Q_C$]. That is, the intrinsic features of those +Animate entities imply a constitutive value (Q_C) which not only remains but is also intensified by the addition of the semantic value of the adjunct. Thus, this type of Experiencer entity is subjectively assessed by the speaker as possessing certain intrinsic characteristics that are conducive to the action denoted by the predicate in the way indicated by the adjunct.

The Q_C mode denoted in this type of Experiencer referents involves the entity's personality traits, including psychological traits and also etological features in the case of animals. As Bedkowska-Kopczyk explains, "feelings are an inherent component of emotional experience, as proven in psychological and philosophical studies of emotion" (2014: 211). Therefore, psychological traits are seen as an inherent feature which is part of the natural disposition of a given Experiencer entity; that is, they are part of the Q_C mode.

In line with the ideas provided in this dissertation, the lack of semantic shift from a telic (Q_T) to a constitutive (Q_C) value in Experiencer-Subject middles is due to the fact the semantic charge of the adjunct is more accused and is oriented towards the intensification of the Q_C mode relating the nominal entity and the predicate. This contributes to the identification of the implicit Agent as necessarily the same entity which is constituted as the Experiencer of the adjunct. Hence, the semantic value of the adjunct can be understood as an intensifier of the inherent constitutive features of the nominal entity.

According to the prototype effects in the family-resemblance analysis provided here, Experiencer-Subject middles designate a change of state or a type of affectation onto the nominal patientive entity that slightly differs from those changes occurring in prototypical ergative-like middles (like '*The meat cuts well*'). The affectedness of a prototypical Patient can be defined as a process experienced by an entity which does not have direct control over the situation, producing a certain change of state understood as

the acquisition of a physical feature (for instance, the cuttability of the meat in question). On the other hand, in the case of Experiencer-Subject middles, such changes of state are seen as the acquisition of a mental/psychological/emotional feature. For example, in the case of (202) above ('*Deer are always alert and frighten with ease*'), such emotional feature would be related to the etological traits naturally found in deer as being scary and shy animals (their Q_C mode). Hence, 'frightening' can be seen as the acquisition of an emotional state governed by fright.

Therefore, in Experiencer-Subject middles, the change of psychological state is not produced by any implied Agent, since the volitional factor is not part of these structures. Instead, such change is due to the natural disposition of the nominal entity to do so. In line with Kemmer's (1993) ideas, Bedkowska-Kopczyk proposes that

> [t]he Experiencer of middle *emotion verbs* is considered to be both an Initiator and Endpoint of the mental event. It is the Initiator in the sense that the event originates in the Experiencer participant's mind and it is the Endpoint in the sense that the Experiencer participant is affected mentally. (…) [T]he affectedness of the Initiator is an inherent part of the mental event. (…) The Initiator/Endpoint entity is essentially a human mind; it is an Experiencer. By virtue of the way human beings experience the world, being an Experiencer necessarily involves both some measure of attention on the part of that Experiencer, and mental affectedness of that Experiencer. (Bedkowska-Kopczyk, 2014: 210)

Accordingly, the same arguments can be given in the case of +Animate non-human entities (*i.e.*, animals and plants) occurring in Experiencer-Subject middles.

3.1.2.3.   The case of ergative-like middles with either Patient or Agent-Instrument Subjects with verbs of cutting

> *"This paper is a beautiful chocolate brown color and has good stiffness. The cutting service is a godsend. Having the paper pre-cut saved me a lot of time. Love, love this paper. It cuts well in the cricut"*
>
> (Sketch Engine)

With the purpose of examining the differences between prototypical ergative-like middles and their metonymically-motivated extension known here as Agent-Instrument middles in terms of their process of Compositional Cospecification, Levin's (1993: 156) set of *cutting* verbs has been used to compile a corpus of 1574 examples.[164] Since not every predicate occurring in prototypical ergative-like middles can appear in Agent-Instrument middles, Levin's group of *verbs of cutting* has been selected here because they are compatible and frequent with both types of middles.[165]

As briefly explained in Section 3.1.3, even though Agent-Instrument middles are classified as metonymically-motivated extensions from prototypical ergative-like middles, they differ in the analysis of their schemas in terms of Compositional Cospecification. This is so because these two types of middles project different portions

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[164] Levin's (1993: 156) set of *verbs of cutting* is composed by two groups of verbs: *cut* verbs and *carve* verbs. From this list of verbs, some had no occurrence in middle structures in the corpus consulted (enTenTen13 within Sketch Engine). Thus the 29 predicates that have been selected and compiled here are the following ones: (i) *cut* verbs like 'clip', 'cut', 'saw', 'scrape', 'scratch', and 'slash'; and (ii) *carve* verbs like 'bore', 'bruise', 'carve', 'chip (potatoes)', 'crush', 'dent', 'drill', 'file', 'fillet', 'grate', 'grind', 'mash', 'mince', 'mow', 'nick', 'perforate', 'pulverize', 'punch (paper)', 'prune', 'shred', 'slice', 'squash', and 'squish'.

[165] Consider the following examples in this regard: '*Glass breaks easily*' and '*A hammer breaks (glass) easily*'. Both examples contain the predicate 'break'; however, only the former denotes a proper middle, particularly, a prototypical ergative-like middle. By contrast, the second example is not a middle structure of the Agent-Instrument type, but a canonical transitive structure which projects the Direct Object syntactically.

of the action chain being described, and consequently, the Subject entities have different semantic roles. Whereas prototypical ergative-like middles (like (207) below) take Patientive entities as Subjects, the nominal referents appearing in Agent-Instrument middles (as in (208) below) are non-affected:

(207) *The steak was nice and reddish in the middle, the sort of steak that cuts like butter.*

(208) *Keep a reasonably sharp blade in it and this jig saw cuts well regardless of what kind of wood is being cut or how thick.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In (207) above, the nominal 'steak' is affected by the cutting event, as it is a Patientive entity. On the other hand, the nominal 'jig saw' in (208) above is not affected at all by the cutting event because it is not the Patient but the Instrument which is manipulated by the implicit agentive participant to perform the cutting activity upon an (implied) Patientive entity (in this case, 'wood').

This divergence in terms of the portion of the action chain being represented in each case has led to some controversy so as to conceive Agent-Instrument middles as proper middles or not.[166] In part, this is due to the fact that Agent-Instrument middles can be paraphrased with a *with-* phrase (thus indicating a mere instrumental role), and they could be interpreted as metonymic extensions of the implied Agent. Consider example (209) below, which is a paraphrase of the Agent-Instrument middle instantiated in (208) above:

(209) *Any kind of wood cuts well with this jig saw.* (Own elaboration)

In this occasion, the Subject entity ('any kind of wood') is Patientive whereas the nominal 'jig saw' has the semantic role of Instrument here; thus, example (209) above would be considered a prototypical ergative-like middle structure.

Yet, despite the ambiguity "between a middle reading and an ordinary active reading that profiles the Agent-like involvement of the instrument in the process" (Heyvaert, 2003: 130), due to the prototype effects of the middle prototype category, Agent-Instrument middles like (208) above instantiate proper middle structures. The main

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[166] Mackenzie, J.L. (2017) [Personal communication, at the ESSE Doctoral Symposium, 27-29 August, 2017, Thessaloniki, Greece].

difference between prototypical ergative-like middles and their metonymic extension Agent-Instrument middles is that the latter undergo the prototypical pattern found in action-oriented middles in Compositional Cospecification ($[Q_T \rightarrow Q_C]$), whereas the former follow the schema $[Q_C \rightarrow Q_C]$. Therefore, Agent-Instrument middles possess a telic value that connects the Subject entity and the semantics of the predicate, whereas this Q_T mode is lacking in the process of Compositional Cospecification in prototypical ergative-like middles. Instead, they only rely on the Q_C mode in compositional analysis. Consider the following instances in this regard:

(210) *The walls and roof were made from some really nice heavy-duty <u>polycarbonate</u> with fiberglass roofing material. This stuff is very nice – <u>it cuts well</u>, does not break, does not shatter, flexes a lot.*

(211) <u>*Padouk saws well*</u>*, but because of its hardness and density it requires a slow saw rate.*

(212) *<u>Zinc Selenide (ZnSe)</u> is a crystal very commonly used for CO2 laser lenses and windows. Great care must be exercised in its handling, mounting, and cleaning. Apply uniform pressure when handling/mounting. Tools like tweezers must be avoided because <u>this material easily scratches, cracks, and chips</u>.*

(213) <u>*Foam carves easily*</u>*, but is a little rough, depending on which tool you use.*

(214) *The essential nature of <u>a knife</u> is to cut because it was made for that purpose, and so a knife is good if <u>it cuts well</u>.*

(215) *It's <u>a handy silicone spatula</u> that stirs and <u>scrapes with ease</u>, and makes frosting a snap.*

(216) *<u>Z</u> is a heavy-duty, general-purpose product that renders and <u>carves fast</u> and eliminates bottlenecks in architectural modelling.*

(217) *Multiple levels of heat and metals gave <u>the knife</u> its special colors. Because of the many levels of metal, <u>it does chip easily</u>, but overall, it's very hardy and sharp.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Examples (210) – (213) instantiate prototypical ergative-like middles, whereas examples (214) – (217) are Agent-Instrument middles. Hence, in the case of prototypical ergative-like middles, their respective Subject entities have a Patientive role in semantic analysis, and there is no telic connection between the meaning of the nominals and the semantics of the predicates. Thus, the pattern $[Q_C \rightarrow Q_C]$ is revealed in compositional

analysis. By contrast, in the case of Agent-Instrument middles, their Subject referents have an Instrumental role which implies another Patientive entity being affected by the action denoted. Besides, in Agent-Instrument middles there is a telic (Q_T) connection between the Subject entity and the verb in the process of Cospecification, revealing the schema [Q_T→Q_C] in Compositional Cospecification.

3.1.2.4. The case of middles with the predicate 'sell'

"Honey, you're so talented. Your art sells well, and for a lot of money"

(enTenTen13 corpus, Concordance section, Sketch Engine)

The predicate 'sell' has been largely discussed in the literature with regards to its role in the middle construction (*cf.* Fagan, 1992: 55, 160).[167] For example, Iwata (1999: 548) points at the 'habitual' or 'specific event reading' which middles with 'sell' can acquire, in contrast to the more canonical 'generic meaning' normally found in ordinary middles. In other words, contrary to archetypal middles relying on "the potentiality of an event without any commitments to actual occurrences", middles with 'sell' are characterised by their ability to denote a specific-event interpretation by generalizing over actual events. In addition, it is relatively frequent to find this type of middles in the past tense and in the progressive (Iwata, 1999: 548). Thus, instances like '*This book sells/sold/is selling well*' reveal the versatility and flexibility of middles with the predicate 'sell' when it comes to the specific-event interpretation that these sentences may have.

According to the family-resemblance analysis provided in this dissertation, 'sell' middles would belong to the class of action-oriented middles, since they do not include any affected/Patientive Subject entities. Instead, their nominal referents take the role of Enabler. Consider the following instances to this respect:

(218) [about a novel] *The author's precocity ensures that <u>the Bestiary sells well</u>.*

(219) [about a punk album] *It just sells like crazy.*

(220) *The official Atlanta Ballet Nutcracker (20$) sells better than anything.*

(enTenTen13 corpus, Concordance section, Sketch Engine)

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[167] The middability of the predicate 'sell' has traditionally been contrasted with the unacceptability of middles with the verb 'buy' (*cf.* Fagan, 1992: 76-78; Yoshimura and Taylor, 2004: 310).

Even though 'sell' middles such as (218) – (220) above belong to the class of action-oriented middles, they do not follow straightforwardly the prototypical schema [Q_T→Q_C] in the process of Compositional Cospecification. Instead, other more complex patterns are found, relying on contextual factors which contribute to the activation of certain *qualia* modes, as detailed below. Consider the case of (221) in this regard:

(221) *The best known of all his works, it has been translated into fifteen languages, has gone through numerous reprintings, and still sells well.* (enTenTen13 corpus, Concordance section, Sketch Engine).

The situational context of (221) above might involve a speaker who is a bookseller or an editor, for instance. Therefore, contextual factors can focus attention on a certain domain of the entity in question (in this case, a book) that might otherwise not be accessed at all or only at a lower level of activation. Let us first examine the specifications of the lexical item 'book' in isolation and later compare this to the specifications entailed by the construal of the particular 'book' in (221), taking into account the process of Cospecification. The lexical unit 'book' in isolation (*i.e.*, without taking into account its relation with the semantics of the predicate 'sell') could be analysed in terms of its most salient domains and *qualia* modes as follows:

(i)   its function or Q_T mode; *i.e.*, being read, as well as either entertaining or teaching people);

(ii) its constitutive parts or Q_C mode; *i.e.*, the different components of the 'book': the material with which the cover and the back cover are made, the content of the book, the quality of such content, its figures and pictures, the pages written, etc.;

(iii) some formal features of the book, *i.e.*, its Q_F mode, which differentiate this entity from other related entities: the way in which the paragraphs are distributed, the shape and size of the letters, the use of colour, its design, and other formal or visual/sensory features; and

(iv) the social status and reputation of the author in the literary community, *i.e.*, its Q_A mode.

Nevertheless, as listed above, it seems that there is not a salient domain which relates the 'book' and the 'selling activity' portrayed in the construal of (221) above. In other words, contrary to prototypical action-oriented middles, in 'sell' middles there is

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not a straightforwardly telic connection (Q_T) between the Subject entity and the verbal predicate. Such specification of the entity 'book' in relation to the semantics of the predicate 'sell', however, could gain prominence in a situational context in which the speakers were involved in the selling activity. In this way, the Q_T mode would be activated in this situation, becoming the most salient feature in the process of Cospecification. This is so because the fact that a book can be sold involves our encyclopedic knowledge of books as transactional products. This implies that "appropriate contextualization can dramatically enhance the acceptability of a middle expression through the foregrounding of an appropriate *quale*" (Yoshimura and Taylor, 2004: 311). Hence, in the case of (221) above, the domain of transactability would coincide with the final purpose of the book in question, its Q_T mode.

Nevertheless, when the semantic value of the adjunct ('well' in this case) is added in compositional analysis, a shift of semantic weight from Q_T to other *qualia* modes occurs. Such modes coincide with other specifications which are activated in this case to explain the successful selling of the book in question. Therefore, the construal of (221) entails the activation of certain domains related to these different *qualia*: Q_C, Q_F, and Q_A. *Qualia* foregrounding (or domain highlighting) is enriched not only when representational (lexical-semantic) and basic conceptual information are taken into account, but also when contextual and discourse information are added to the equation,[168] thus contributing to the activation of certain specifications portrayed in the construal of the situation.[169] As Yoshimura explains, "[t]he *qualia* roles of Subject nominals are not invariably determined by the semantics of the verbs alone. *Contextualization can also serve to specify the proper qualia roles* that are responsible for what the predicate verb designates" (1998: 121; emphasis added).

Therefore, the schema found in (221) above in Compositional Cospecification would be represented by the complex pattern [$Q_T \rightarrow Q_A + Q_C + Q_F$], where Q_T is provided by

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[168] According to Fillmore (1977: 72-74), the meaning of an utterance is dependent on the scene in which it is produced given that the speakers of this situation codify and decodify the message by means of the activation of a given scene in their minds. Such cognitive activation is produced due to the use of a particular verb in a given image domain or scene. Hence the use of one verb or another would influence the perspective on the scene. As Fillmore (1977: 74) puts it, whenever we pick up a word or phrase, we automatically drag along with it the larger context or framework in terms of which the word or phrase we have chosen has an interpretation. It is as if descriptions of the meanings of elements must identify simultaneously 'figure' and 'ground'.

[169] See Section 3.2 for a complete account on how grammatical, cognitive, discourse and situational information interrelate in the construal of the middle construction in English.

virtue of the contextual situation in which the meaning of the nominal 'book' is cospecified by the semantics of the predicate 'sell'. Then, the incorporation of the adverb 'well' provokes a shift in semantic importance towards the inherent features of the book in question which favours the selling event, namely, the reputation of its author (Q_A), the contents of the book (Q_C), and other formal features of the book (Q_F).

3.1.2.5.   The cases of Destiny and Result-oriented middles

"Let's say you're going bike-camping. If you have a Swiss Army Knife, it's got lots of tools, it fits in your pocket and it can do eight different things"

(enTenTen13 corpus, Concordance section, Sketch Engine)

Other two types of marginal middles, according to Heyvaert's (2001, 2003) and Davidse and Heyvaert's (2007) semantic typology, are the cases of Destiny- and Result-oriented middles. The structures examined in the corpus of this dissertation belonging to these two semantic subtypes of middles are based on the occurrence of Inanimate Subject entities in combination with either collocations V + Prep of Location (in the case of Destiny-oriented middles), or collocations V + Adv indicating result (in the case of Result-oriented middles). These two subtypes of middles basically appear within action-oriented and ergative-like structures, as shown in the examples below.[170]

Remarkably, the process of Compositional Cospecification reveals the complexities of these structures, producing patterns in which no shift of semantic importance from a telic to a constitutive value occurs (*contra* Yoshimura, 1998, and Yoshimura and Taylor, 2004). Instead, the patterns occurring in these cases are basically the following ones: $[Q_C \rightarrow Q_C]$ and $[Q_F \rightarrow Q_F]$, as well as the more complex pattern $[Q_C+Q_F \rightarrow Q_C+Q_F]$, as detailed in the paragraphs below. Hence, as it is demonstrated here, the patterns found in both Destiny- and Result-oriented middles are characterised by the absence of a telic value (Q_T) in the process of Compositional Cospecification. Let us first analyse the case of Destiny-oriented middles.

As detailed in Section 2.3.4, Destiny-oriented middles contain locative oblique participants as Subject and, as Davidse and Heyvaert (2007: 68) comment, they "specify the typical LOCATION of the subject entity" by focusing on either "where the subject

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[170] For a detailed examination of the collocational structures and their frequency of appearance, see Chapter 4.

entity is meant to be placed to make it function" (as in examples (222) – (225) below) or "where it is stored when it is not being used" (as in examples (226) and (227) below):

(222) *The dress buttons at the back of the neck.*

(223) *Super high-quality earphones (…) with three controls, iPod-like shape and size. Attaches to your belt.*

(224) *This is a wig that attaches to your scalp via a vacuum seal.*

(225) [about an organic reusable snack mat] *This mat is a great alternative to a sandwich bag, because it wraps around the sandwich and you don't have to worry about your sandwich sloshing around in a bag.*

(226) *This amazing resistance training home gym system is so small it fits in a briefcase, gym bag, backpack or purse.*

(227) *Signal caution to other drivers with this Reflective Triangle. It folds up into a convenient carrying case when not in use.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In the above examples, it can be observed that the inherent properties of the Subject referents eventually lead to placing the nominal entities in their specified locations by either pointing at where the nominal entities are meant to be placed to make them function (as in examples (222) – (225)), or where they can be stored when not being used (as in examples (226) and (227)). In addition, these inherent features can be analysed in terms of *qualia* structure as follows: examples (222) and (227) foreground the Q_C mode of their nominals; examples (225) and (226) profile the Q_F of their Subject entities; and examples (223) and (224) foreground a combination of the Q_F and Q_C mode of their nominals. An examination of these *qualia* modes and their foregrounding processes is further elaborated down below.

These *qualia* modes are foregrounded in relation to the semantics of their corresponding predicates, and the addition of the semantic charge of their respective adjuncts does not alter the *qualia* pattern found in each case, precluding any shift in semantic weight in the process of Compositional Cospecification. This is because, in Destiny-oriented middles, the implication of the Agent in terms of responsibility is highly backgrounded, whereas the subjective assessment of the letting properties of the nominal entities is directly connected to the conduciveness of the action denoted by the predicates. In this way, the value of the adjunct does not motivate any change of semantic importance,

but rather intensifies the *qualia* structure already present in the cospecification of the predicates with regards to the semantics of the nominal entities.

In this regard, the nominal 'dress' from example (222) above is characterised by being buttoned 'at the back' because it is a kind of dress designed with buttons (its Q_C mode) which is only fastened in this way (rather than with a zipper, for instance). Thus, the *qualia* pattern of example (222) would correspond to [Qc→Qc], since there is no telic value between the semantics of the nominal and the predicate. Instead, the constitutive value of the dress in question is foregrounded in terms of the conduciveness to the action denoted by the predicate in the way specified by the adjunct.

The analysis of example (227) is similar to the one provided for example (222). In this case, the 'reflective triangle' in question is characterised by its 'folding up' features as it has been designed in a way that the different components of the device allow it to 'fold up'. Therefore, the Q_C mode is profiled with regards to the process of cospecification of the predicate in accordance with the semantics of the nominal. Besides, the semantic value of the adjunct does not suppose a shift in semantic weight, but rather an intensification of the Q_C structure of the 'reflective triangle', producing the pattern [Qc→Qc] in Compositional Cospecification.

Example (225) foregrounds the formal (Q_F) mode of the nominal in that it elaborates a comparison between the 'snack mat' in question and other more traditional types of sandwich bags. This information allows the differentiation of the Subject entity from other similar entities within the domain or taxonomy of 'sandwich bags' by virtue of the formal features of the 'mat' in question, basically its shape. Therefore, the 'wrapping' event is successful because of the conduciveness of the Subject to the action denoted, and the addition of the semantic charge of the adjunct does not alter the foregrounding of the Qf mode of the nominal entity, but it is intensified instead. Thus, the pattern in Compositional Cospecification in this case is [Qf→Qf].

Similarly, the nominal 'training home gym system' from example (226) is featured by being able to fit in small places because of its size and shape (its Q_F), and consequently, the *qualia* pattern found here is [Q_F → Q_F]. In this case, the conduciveness of the nominal to the 'fitting in' event is provided by the formal features which characterise the 'training home gym system' in question (*i.e.*, its small size), not because of the abilities of any implicit Agent who would eventually participate in the situation.

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Finally, a more complex pattern in Compositional Cospecification can be observed in examples (223) and (224). In example (223), the 'earphones' in question possess such inherent properties (regarding their size and shape (Q_F), as well as their constituent parts (Q_C) to let the 'attaching' event occur) that they are conducive to the action denoted in a successful way. Therefore, the letting properties of the 'earphones' are such that the implication of the Agent is totally backgrounded in terms of pragmatic analysis, whereas the responsibility or Agent-like features of the nominal are profiled as being conducive to the action denoted (*cf.* Langacker, 1991; see also Sakamoto, 2001: 107). Thus, the resulting schema in Compositional Cospecification in this case corresponds to the complex pattern [$Q_C+Q_F \rightarrow Q_C+Q_F$].

Besides, example (224) also repeats the pattern [$Q_C+Q_F \rightarrow Q_C+Q_F$], although there are some differences with regards to the process of *qualia* foregrounding. The Q_F mode is here associated with the formal features of the 'wig' in question that let the 'attaching' event occur. However, the Q_C mode is gained due to contextual information contained in the phrase 'via a vacuum seal'. Hence, in this case, the designed properties of the 'wig' link up with a specification of the means to realize the 'attaching' activity.

Let us analyse now the case of Result-oriented middles, which also rely on the lack of shift in semantic weight from a telic to a constitutive value in the process of Compositional Cospecification. As detailed in Section 2.3.4, Result-oriented middles are defined as those which "comment on the result of carrying out a certain process on the entity construed as subject" (Heyvaert, 2001: 292), as shown in examples (228) – (232) below:

(228) *I bought* <u>*this rug*</u> *for photography purposes only, though I would still use it as a living room or bedroom rug. This* <u>*photographs well*</u>*!*[171]

(229) [about <u>a baby pyjama</u>]. *It's made from good quality material, soft and* <u>*washes well*</u> *with no bobbles.*

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[171] Even though the Result-oriented middles included in the corpus of this dissertation take an Inanimate Subject, it is frequent to find +Animate Subject middles within action-oriented structures with the predicate 'photograph' and the adjunct 'well'. Consider the following example: '*Rihanna: The unstoppable artist. The voice. The fluid dance moves. The personal style. The pixie. She photographs well*' (Sketch Engine). As it happens with Inanimate Subject middles of the Result-oriented type, the inherent properties of the nominal entity (in this case, Rihanna's formal features of her face and body (Q_F) as well as other intrinsic features of style and personality traits (Q_C) are conducive to the photographing event independently from the abilities of the implied photographer. Therefore, no shift in semantic importance from a telic to a constitutive value occurs. Instead, the pattern in Compositional Cospecification analysis is this one: [$Q_F+Q_C \rightarrow Q_F+Q_C$].

(230) [about a <u>shampoo</u>] *The formula has a soft and medium-thick consistency, it's easily worked through the hair and <u>rinses well</u>. After leaving the product to work for the recommended 5-10 minutes, the incredible results become obvious! As my hair dried, it felt soft and weightless!*

(231) *<u>This table</u> is perfect for us. It <u>folds up neatly</u>, and can be stored under a large bed. I wish there was a storage bag that came with it, but for the price, you just cannot beat it.*

(232) [about <u>a brand of coffee creamer containers</u>] *Fill a container with sugar. It pours easily into your coffee and <u>stores neatly</u> in the cupboard sealed up tight. It's also great for cornmeal, rice and other grains so you don't have those bags cluttering the cupboard.[172]* (enTenTen13 corpus, Concordance section, Sketch Engine)

As can be observed in the above examples, the lack of a telic value in the cospecification of the predicates in accordance with the semantics of the nominal entities precludes any type of semantic shift in the process of Compositional Cospecification, since the *qualia* modes of the nominals (Q_C, Q_F, or a combination of both) are profiled against the implication of the potential Agent.

In this way, in example (229), the material or fabric with which the 'baby pyjama' in question is designed (*i.e.*, its Q_C) allows the 'washing' event to occur in the way specified by the adjunct because of the inherent qualities that this fabric possesses. In addition, such inherent qualities also contribute to the lack of bobbles after washing. Since there is lack of a telic value in the process of cospecification of the predicate in accordance with the semantics of the nominal, no shift in *qualia* structure is found here. Rather, the pattern in Compositional Cospecification reveals the schema [$Q_C \rightarrow Q_C$].

Similarly, examples (230) and (231) also display the same pattern in Compositional Cospecification. In the case of (230), the 'formula' of the shampoo in question makes it a 'soft' product with a 'medium-thick consistency'. These features coincide with the Q_C mode of the shampoo, contributing to the 'rinsing' event, independently of the abilities of any implied Agent. In fact, these inherent properties are

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[172] The Destiny-oriented middle instantiated in example (11) ('a container that stores neatly in the cupboard') is combined with a Facility-oriented structure incorporating the adverb 'easily' ('pours easily'), which incorporates a Destiny-oriented adjunct too ('into your coffee'). According to Heyvaert (2001, 2003) and Davidse and Heyvaert (2007), middles can combine different highlighted facets of the interaction between the predicate and the nominal, as it is shown in example (11).

portrayed as intensified because of the addition of the semantic value of the adverb 'well'. Therefore, no shift in semantic importance occurs here, revealing the schema [Q_C→Q_C] in the process of Compositional Cospecification. The results of applying this product on one's hair, once it has been rinsed away, are foregrounded by contextual elements ('feeling your hair soft and weightless').

Besides, the table in example (231) has been designed in a way that the different components or parts which form part of the device (*i.e.*, its Q_C) enable the folding up action as specified by the adjunct (that is, 'neatly'), independently of the abilities of any implied Agent. Such inherent features of the nominal are pragmatically profiled against the role of the backgrounded Agent, precluding any shift in semantic importance and just foregrounding the nominal's Q_C mode in cospecification with the predicate. Such constitutive value is intensified by virtue of the semantic charge of the adjunct. Therefore, the pattern in Compositional Cospecification found here would also correspond to the schema [Qc→Qc].

On the other hand, the 'container' in example (232) possesses such inherent properties, for instance, being characterised by a specific shape and having a certain dimension (*i.e.*, its Q_F mode) that it allows the 'storing' activity to happen in the way specified by the adjunct, *i.e.*, 'neatly', independently of the abilities of any implied Agent. Hence the pattern in Compositional Cospecification here would correspond to the schema [Q_F→Q_F].

Finally, a more complex pattern in Compositional Cospecification is instantiated in example (228): [Q_C+Q_F→Q_C+Q_F]. That is to say, the fact that the 'rug' in question 'photographs' at all is due to its features as a material object that can be captured in a photography. However, the fact that the same 'rug' can be 'photographed *well*' implies that its inherent properties are assessed by the speaker as being conducive to the action denoted by the predicate in the way specified by the adjunct. For instance, the 'rug' might be characterised by being designed with certain materials or fabrics (its Q_C) as well as a certain combination of colours and a designed pattern (its Q_F) that they would allow the good-quality of the 'photographing' event to occur, independently of the photographing skills of any implied Agent.

3.2. Symmetry in the underlying structure of the middle Subject and the verbal predicate: A reanalysis of the Rijkhoffian model

As stated previously, given that the middle construction is considered a prototype category (rather than a discrete category), and also taking into account that middles do not always follow the traditionally accepted features due to their prototype effects, a reanalysis of previous functional analyses is provided here, as shown in Figure 10 further below in this section. This reanalysis of two functional approaches is based on Hengeveld's (2004) top-down new architecture (as represented in Figure 7 below), as well as on the Rijkhoffian (2008a, 2008b) diagram (illustrated in Figures 8 and 9 below). The resulting diagram (Figure 10) shows a complex analysis of the middle construction in English from a functional-cognitive perspective. Remarkably, it can be used to catalogue middle instances according to the lexical, morphosyntactic, semantic, discourse-referential, contextual and cognitive parameters found in each case. Thus, the analysis carried out in this dissertation provides a systematised way to represent all the different levels of analysis of the middle construction, as well as the prototype effects found along the middle spectrum.

Let us start by examining Hengeveld's (2004) proposal of a top-down hierarchical model of grammar within the Functional Discourse Grammar (FDG) framework, whereby different levels interact,[173] as shown in Figure 7 below:

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[173] Hengeveld's contribution in Functional Grammar (FG), the predecessor of the FDG model, is to introduce a tripartite formal notation corresponding to the tripartite functional hierarchy of influence: pragmatics > semantics > syntax becomes instantiated as interpersonal layer > representational layer > expression layer (*cf.* Anstey, 2004: 48).
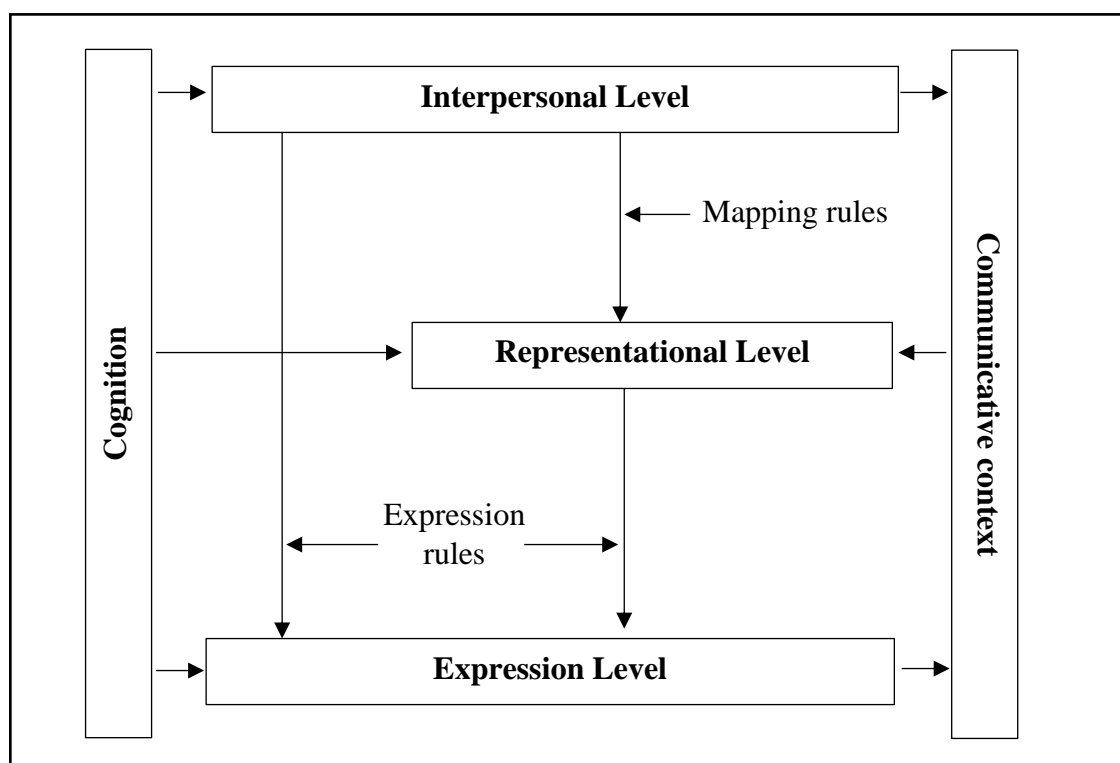
Figure 7. Hengeveld's top-down hierarchy in FDG[174]

In pursue of gaining psychological adequacy to account for 'a grammar of discourse', Hengeveld (2004) proposes a top-down model which differs radically from the classical FG bottom-up orientation.[175] This reversal is influenced by Levelt's (1989) theory of speech production process, which basically describes a top-down model "running from intention to articulation" (2004: 2). As Hengeveld writes,

> [i]n the model defended here production is therefore described in terms of a top-down rather than a bottom-up model. This step, apart from having a higher degree of psychological adequacy, is crucial to the development of a grammar of discourse: in a top-down model, the generation of underlying structures, and in particular the interfaces between the various levels, can be described in terms of *the communicative decisions a speaker takes when constructing an utterance*. (2004: 2, emphasis added)

As can be observed in Figure 7 above, Hengeveld (2004) proposes a hierarchical multi-level model in which the separate modules of the Grammatical Component (Interpersonal,

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[174] Adapted from Hengeveld (2004: 4).

[175] As Anstey explains, Hengeveld's FDG proposal gains psychological adequacy with respect to the traditional FG model in that "it starts from the interpersonal layer and works down towards the expression", whereas FG "moves from the lexicon to predicates through to full expressions" (2004: 51).

Representational and Expression Levels) interact among them and also with the Cognitive (or Conceptual) and Contextual Components. Anstey claims that "Hengeveld's contribution in FG is to introduce a tripartite formal notation corresponding to the tripartite functional hierarchy of influence: pragmatics > semantics > syntax becomes instantiated as interpersonal layer > representational layer > expression layer" (2004: 48). In addition, as Hengeveld goes on to argue, "[m]apping rules link the interpersonal to the representational level, in those cases in which semantic content is necessary for the transmission of a certain communicative intention" (2004: 3). Besides, these two levels of representation are linked to the Expression Level by means of expression rules. "In cases in which only pragmatic content has to be transmitted, expression rules directly link the interpersonal to the expression level" (Hengeveld, 2004: 3).

The three levels of the Grammatical Component interact with both the Cognitive and the Contextual Components.[176] As Hengeveld clarifies, "[t]he cognitive component represents the (long-term) knowledge of the speaker, such as his communicative competence, his knowledge of the world, and his linguistic competence" (2004: 3). As further explained in this section, there is a clear identification between Hengeveld's Cognitive Component and the encyclopedic knowledge of the speakers as portrayed in Section 3.1.

In addition, as Hengeveld explains, "[t]he communicative component represents the (short-term) linguistic information derivable from the preceding discourse and the non-linguistic, perceptual information derivable from the speech situation" (2004: 3). As detailed down below, Rijkhoff (2008b) proposes the distinction of two different types of contextual components based precisely on Hengeveld's contrast between the linguistic and non-linguistic nature of the information mentioned above.

Therefore, according to Hengeveld, the Cognitive/Conceptual Level "is responsible for the development of both a communicative intention relevant for the current speech event and the associated conceptualization with respect to the relevant events in the external real or imaginary world" (2005: 57). For its part, the Contextual Component "does not only contain a description of the content and form of the preceding

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[176] The direction of the arrows in Figure 7 shows that the Cognitive Component feeds into the three levels of the Grammatical Component, whereas the Contextual Component only feeds into the Representational Level and is fed into both the Interpersonal and the Expression Levels.

discourse, but also of the actual perceivable setting in which the speech event takes place" (Hengeveld, 2005: 58). Regarding this issue, Cornish points out the following:

> [w]hereas the Communicative Context component within the FDG model must clearly keep track of the preceding current discourse, as we have seen, and must feed this information into the Interpersonal Level in order for it to be able to manage the organization of future messages, the Cognitive component must contain long-term representations of both linguistic and non-linguistic kinds: *encyclopaedic information concerning real-world* properties and relationships, as well as personal information assumed by the current speech participants to be mutually shared, and which is relevant to and evoked via the current discourse. (Cornish, 2004: 141)

According to Hengeveld's Grammatical Component, the Interpersonal Level accounts for the central pragmatic unit of analysis (which the author calls 'move'), that is, "the expression of a single *communicative intention* of the speaker" (2004: 5; emphasis added). Some examples of speaker communicative intentions are inviting, warning, recommending, questioning, etc. A single communicative intention can be made up of one or more discourse acts, and "[e]very act may be characterized in terms of its illocution" (2004: 5). This implies that, the Interpersonal Level in Hengeveld's analysis involves the participants in the discourse act (speaker and addressee), as well as the communicated content (*i.e.,* the information or message transmitted).[177]

The Representational Level involves the semantic content with which the speaker 'fills' the utterance when transmitting the chosen communicative intention. This semantic information refers to "descriptions of entities as they occur in the non-linguistic world" (2004: 6). Such entities can be expressed by lexical items or some constructs, always in the form of one of these: (i) third-order entities, *i.e.,* propositional contents;[178] (ii) second-

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[177] The Interpersonal Level in FDG is based on the Hallidayan 'interpersonal metafunction' in Systemic Functional Grammar (SFG). The main difference is that the Interpersonal Level in FDG involves both discourse and also attitudinal phenomena, whereas in SFG only the latter are part of the interpersonal metafunction, and discourse phenomena are analysed at the textual component. As explained further below, Rijkhoff's proposal also separates discourse from attitudinal phenomena into two different modules.

[178] As discussed further below, Rijkhoff (2008b: 102) states that propositional content should be analysed at the Interpersonal (rather than Representational) Level due to its "strong interpersonal nature". This contrast between both authors is due to the fact that Rijkhoff considers that proposition modifiers "inform the *Addressee* about the status of a proposition (a third-order entity) in the discourse", and they cannot form part of the *descriptive* levels of analysis because they "specify the *speaker's mental or cognitive attitude towards (or personal assessment of) proposition* X_i with regard to the probability, possibility or desirability of event e_i actually taking place" (2008b: 102; emphasis added).

order entities, that is, states of affairs; (iii) first-order entities, *i.e.,* individuals; or (iv) zero-order entities, that is, properties (2004: 6).

The last level at the Grammatical Component in Hengeveld's proposal, the Expression Level,[179] is language-dependent, as it deals with the morphosyntactic distribution of the semantic content of the previous level. That is, "every language has its own expression possibilities, which lead to different expression units in their grammars" (2004: 6-7). This idea is also represented in Rijkhoff's cross-linguistic approach. Finally, the last step in Hengeveld's model (which is not represented in Figure 7 above) is called the output component or Articulation. This is not a grammatical level but "the actual output of the grammar" (2004: 7). It basically "generates acoustic, signed, or orthographic expressions" (Hengeveld, 2005: 57).

Once Hengeveld's hierarchical top-down model has been briefly summarised, let us examine the Rijkhoffian (2008a, 2008b) theory of the symmetry in the underlying structure of the NP and the clause,[180] as shown in Figure 8 below. Rijkhoff also provides a reanalysis of the classical FDG distribution and interaction between the Grammatical Component (formed by the classical levels Interpersonal, Representational, Structural/Expression Levels) and the Cognitive/Conceptual, Contextual, and Output Components (*cf.* Rijkhoff, 2008b: 89). As detailed down below, Rijkhoff's proposal does not only addresses the classical FDG model by splitting the Contextual Component into two different components, but it also justifies why attitudinal propositional content pertaining to the speaker's personal assessment of the proposition should be analysed at the Interpersonal rather than at the Representational Level (*contra* Hengeveld, 2004, 2005). Let us start by examining the Rijkhoffian diagram shown in Figure 8 below:

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[179] In previous proposals within the FDG framework, the Expression Level is also known as the Structural Level.

[180] The original model was proposed by Hengeveld (1987, 1988, 1989). For a comparison between Hengeveld's and Rijkhoff's proposals, see Butler (2008).

Π_4 ———————————————— Discourse-referential ———————————————— Σ_4

π_3 ———————————————— Location ———————————————— σ_3

π_2 ———————————————— Quantity ———————————— σ_2

π_1 ———————— Quality ———————— σ_1

π_0 ——— Kind ——— σ_0

EVENT   (verbal predicate)

THING   (noun phrase)

ω_0 ——— Kind ——— τ_0

ω_1 ———————— Quality ———————— τ_1

ω_2 ———————————— Quantity ———————————— τ_2

ω_3 ———————————————— Location ———————————————— τ_3

Ω_4 ———————————————— Discourse-referential ———————————————— T_4
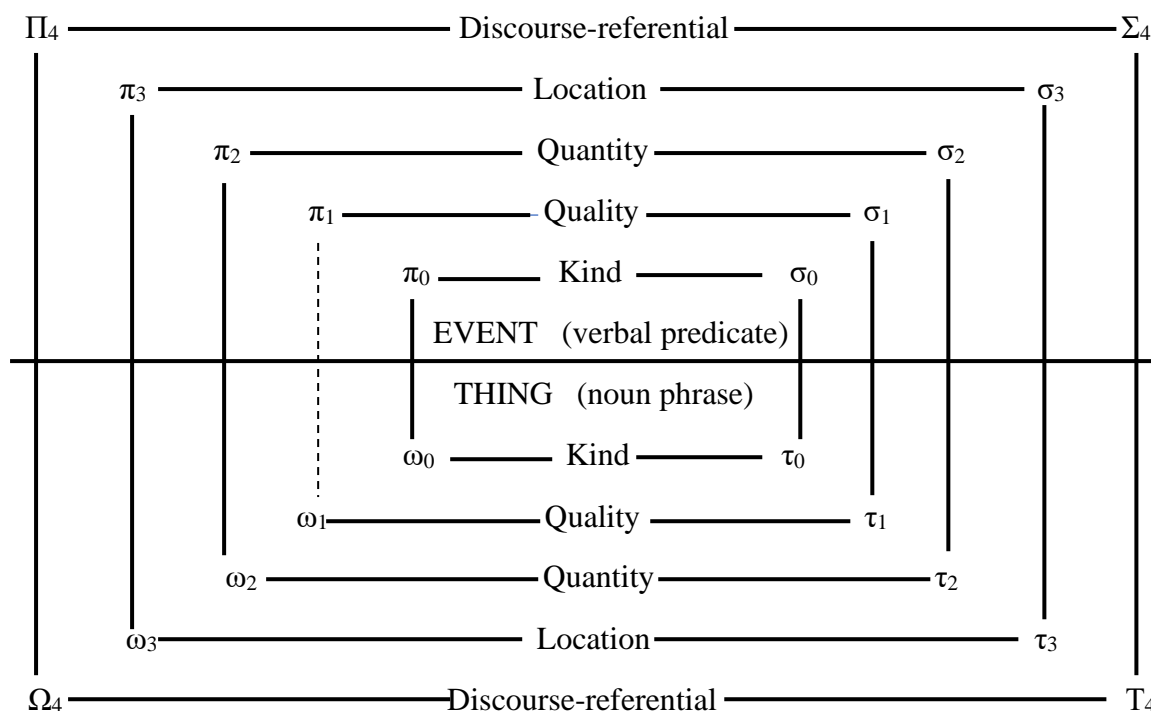
Figure 8. Rijkhoff's five-layered model of the NP and the clause[181]

Basically, Rijkhoff's (2008a, 2008b) concentric distribution of modifiers of the NP and the clause (*i.e.,* NP *grammatical operators* [Ω, ω] and *lexical satellites* [T, τ], as well as clause *grammatical operators* [Π, π] and *lexical satellites* [Σ, σ]) summarises his theory of the symmetry in the underlying structure of the NP and the clause.[182] According to this crosslinguistic model within the FDG framework, the NP and the clause can be analysed as having five layers of modification, accommodating, on the one hand, classifying, qualifying, quantifying, and localizing modifiers at the Representational Level of the Grammatical component, as well as discourse-referential modifiers at the Interpersonal Level. Modifiers at the Representational Level possess a descriptive nature (Rijkhoff, 2008b: 65). In other words, "[a]t the Representational Level, modifiers specify

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[181] Adapted from Rijkhoff (2008b: 81)

[182] Rijkhoff (2008a: 814) postulates that there are three main ways to account for the symmetry in the underlying structure of the NP and the clause: either clause structure or NP structure is derived from the other, or there is "a single cognitive procedure that deals with spatio-temporal entities". Even though the three options are plausible due to their empirical foundation, the last one is favoured in this dissertation. As the author writes, "[a]lthough relatively little is known about the way the human cognitive system deals with spatial and temporal entities, linguistic evidence indicates that our conceptual system is largely metaphorical in nature (Lakoff, 1987). Since there are many examples which show that spatial metaphors are used to express temporal and other nonspatial notions, it is assumed that spatial conception plays a fundamental role in human cognition (Lyons, 1977: 718; Levinson, 1992). Perhaps it is because temporal entities are understood in terms of (cognitively less complex) spatial entities that NPs and clauses can be analysed in a similar fashion" (Rijkhoff, 2008a: 814).

properties of spatio-temporal entities (things, events) in the *World of Discourse* in terms of the notions Kind (Class), Quality, Quantity, and Location" (García Velasco and Rijkhoff, 2008: 25; emphasis in original). In addition, as Rijkhoff writes, "discourse-referential modifiers, which are specified at the *Interpersonal Level* in the grammatical component, are only concerned with the status of the referent (thing, event) as a discourse entity and not as Hengeveld has claimed, also with emotional or attitudinal phenomena" (2008b: 64). This idea will be addressed again further below (cf. Butler, 2008).

Even though there is not a one-to-one correspondence between the form and the function of the elements occurring in the grammatical component (2008a: 791), the symmetry in the underlying structure of the thing and the event in the Rijkhoffian (2008a, 2008b, 2002a, 2002b, 2005) analysis is explained by following a *bottom-up concentric and symmetrical* examination of the layers, from the innermost to the outermost, as follows:

a.   The innermost layer, the Kind layer or L0, has scope over the head noun/verbal predicate and accommodates modifiers related to the property that is designated by the noun or the act denoted by the predicate, respectively. Then, they contribute to the specification of what *kind* of entity/event is being referred to by the speaker (2008a: 790-791). Therefore, this layer involves the following: (i) grammatical verbal operators referring to Verbal Aspect according to ±Ending and ±Beginning features [π_0]; (ii) lexical verbal modifiers involving the notion of *Aktionsart* [σ_0]; (iii) grammatical nominal operators referring to Nominal Aspect according to ±Shape and ±Homogeneity features (which are inflectional markers of the lexical notion of *Seinsart*)[183] [ω_0]; and (iv) lexical nominal satellites involving classifying adjectives [τ_0].

b.   The subsequent layer, the Quality layer or L1, has scope over the preceding layer and accommodates modifiers that specify either formal properties of the head noun (like its size, colour, weight, etc.) or they specify the manner in which the action denoted by the predicate is carried out by the Agent. This layer is presented as problematic in the sense that it lacks grammatical operators at each side of the symmetrical structure, as shown by the dotted line from π_1 to ω_1 (cf.

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[183] On *Seinsart* see Rijkhoff (2002b: ch. 2).

Rijkhoff, 2008b: 81 and 85-86). As detailed along this section, however, a reanalysis of this idea is required in order to capture the nature of the middle construction. At this layer, according to Rijkhoff, only lexical satellites can occur crosslinguistically. In this case, such modifiers include verbal satellites (like adverbs of manner and speed) $[\sigma_1]$, as well as nominal satellites (like qualifying adjectives) $[\tau_1]$.

c.   The following layer, the Quantity layer or L2, has scope over the preceding layer and it accommodates modifiers related to number distinctions (singular, plural) and cardinality (one, two, etc.) with regards to the noun, as well as frequency distinctions with respect to the verbal predicate. Therefore, this layer deals with the following: (i) grammatical verbal operators involving semelfactive and iterative aspect $[\pi_2]$; (ii) grammatical nominal operators referring to number/numeral distinctions $[\sigma_2]$; (iii) lexical verbal modifiers (mainly adverbs of frequency) $[\omega_2]$; and (iv) lexical nominal modifiers related to lexical numeral features dividing, for example, mensural and sortal classifiers (which are different or even lacking across languages) $[\tau_2]$.

d.   The next layer, the Location layer or L3, has scope over the preceding layer and it includes modifiers that specify properties related to the location of the thing and the event. This layer accommodates the following: (i) grammatical verbal operators like tense $[\pi_3]$; (ii) lexical verbal modifiers (basically, adverbs of time and place) $[\sigma_3]$; (iii) grammatical nominal operators (namely (in)definite articles, demonstratives,[184] and pronouns) $[\omega_3]$; and (iv) lexical nominal modifiers like relative clauses, possessor NPs and participle clauses $[\tau_2]$. Rijkhoff (2008a: 797 and 807) points at the interrelation between certain localizing nominal operators and a given interpretation at the discourse-referential level, contributing to the phenomena of grounding the thing/event in the world of discourse shared by the speakers. Hence the interrelation between Localizing and Discourse-referential modifiers entails "an intricate cognitive relationship between the notions Location and Existence" (2008a: 819).

e.   Finally, at the Interpersonal Level we find the outermost layer, the Discourse-Referential layer or L4. This level is "concerned with language as an

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[184] For a complete account on deictics, see Lemmens (1998: 78).

instrument of *social interaction*" (Rijkhoff, 2008b: 101-102; emphasis added) and it contains pragmatic information pertaining to three different layers of modification: discourse-referential modifiers, proposition modifiers, and illocution modifiers.

(i) Discourse-referential modifiers, "which inform the Addressee about the status of first and second entities in the world of discourse" (2008b: 101); that is, they inform the Addressee about "the *existential status* of a spatial or temporal entity (thing x_i and event e_i) in the world of discourse" (2008b: 98; emphasis in original). Therefore, this layer involves verbal operators like ±Realis and ±Actual [Π_4], and nominal operators like ±Definite and ±Specific [Ω_4]. According to Rijkhoff, there exists a parallelism between ±Realis and ±Definite in terms of grounding/not grounding the event/thing in the shared World of Discourse of the speaker and the addressee (2008a: 816). This is because lexical units (nouns and verbs) "serve a dual purpose in that they are used both to provide a *description* of an entity [or an event] and to serve as an *instrument to refer* to that entity [or that event]" (2008a: 814; emphasis added). On the other hand, this layer also includes the following: verbal lexical satellites like 'actually' and 'really' which "emphasize the actual existence of the event in conversational space" (2008a: 816) [Σ_4]; and also nominal lexical satellites such as 'the same', 'the other' (which "provide the addressee with information about the referent as a discourse entity" (2008a, 798)), as well as other discourse deixis manifestations like 'last mentioned', 'just mentioned', 'the former', 'the latter', etc. [T_4]. Basically, discourse-referential modifiers "specify whether or not an entity occupies a certain spatio-temporal region in the world of discourse. Or they indicate the chance of occurrence of an event as measured against the background of the *speaker's knowledge of the world*" (2008b: 101-102). Due to this, discourse-referential modifiers deal with 'expressions of objective modality' (*cf*. Dik, 1997: 241-243).

(ii) As the Interpersonal Level of analysis involves the notion of 'language as exchange', it also provides propositional content information. Therefore, proposition modifiers (which are analysed at the

Representational Level in Hengeveld's (2004, 2005) model) inform the Addressee about the Speaker's "personal assessment of/attitude towards a proposition X_i as regards the probability, possibility or desirability of the actual occurrence of event e_i" (Rijkhoff, 2008b: 101). In other words, proposition modifiers inform the Addressee about "the *modal status* of proposition X_i, in particular the speaker's mental or cognitive attitude towards the proposition" (2008b: 98; emphasis in original). Therefore, proposition modifiers deal with 'attitudinal satellites' and 'expressions of evidentiality or subjective modality' (*cf.* Dik, 1997: 295-296).[185]

(iii)   Finally, this level also accommodates illocution modifiers, which inform the Addressee about the "*illocutionary status* of the clause" (García Velasco and Rijkhoff, 2008: 25). In other words, illocution modifiers "inform the Addressee about the status of the message (a fourth-order entity)" and they "specify how the message that is being communicated should be interpreted: as a statement (declarative), a question (interrogative), etc." (Rijkhoff, 2008b: 102).

In addition, Rijkhoff (*cf.* 2008b: 93) does not only reanalyse the traditional interaction between the different FDG modules (the Grammatical, the Output, the Contextual and the Cognitive ones), but he also slightly modifies the contents of some of the levels. The author considers that the FDG modules or components are in fact *contexts* of some type. As Rijkhoff puts it, "all major components in the FDG model provide a context of some sort: a grammatical context (G-context), a conceptual/cognitive/mental context (C-context), a discourse context (D-context), and a situational/external context (E-context)" (2008b: 88). Thus, the author proposes that the classical Communicative/Contextual Component is split into two different modules: the D-context and the E-context.

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[185] As detailed down below, this type of subjective modality is connected to Davidse and Heyvaert's (2007) 'subjective speaker assessment' in the analysis of the middle construction, which is also favoured in this dissertation. Thus, the interpersonal letting modal value dealt with in Chapter 2 of the present project would be located at this layer of analysis. In addition, in order to explain why the non-agentive participant in the middle construction occurs in Subject position (whereas the Agent is demoted), we can resort to the pragmatic function of topicalization. As Rijkhoff explains, "[t]here is of course also the pragmatic status of an entity in terms of newsworthiness (topic, focus), but this is realized as a function rather than a modifier" (2008b: 106).

Therefore, according to the models presented by Hengeveld and Rijkhoff within the FDG framework, the more relevant differences are found at their conceptualizations of the speaker's attitudinal propositional content as well as their notions of the Contextual Component. As it is understood in this dissertation, in both cases, Rijkhoff's proposal supposes an advance in the FDG model and hence in the acknowledgement of the functioning of language. Let us comment on the differences between Hengeveld's and Rijkhoff's conceptualizations of the FDG model.

Firstly, Rijkhoff justifies that proposition modifiers, which reflect attitudinal phenomena, must be analysed at the Interpersonal (rather than the Representational) Level because "they clearly contain an instruction on the part of the speaker indicating to what extent statement X_i about event e_i can be taken to be true or factual by the addressee" (2008b: 102). In fact, even though Hengeveld's (2004, 2005) model locates the proposition modifiers at the Representational Level, "[b]efore the introduction of FDG, the proposition was still part of the Interpersonal Level (*cf.* Hengeveld, 1990: 1, 6)" (Rijkhoff, 2008b: 106).

Secondly, regarding the interaction among different modules, Rijkhoff states that "the grammatical component is not the place in FDG to describe *non-linguistic* entities such as (features of) *Speaker and Addressee* or other aspects of the *physical and psychological setting* of the speech situation". Therefore, Rijkhoff's G-context "must only be used to describe and analyse *the form, function and meaning of linguistic constructions*" (2008b: 97; emphasis added). The author clarifies that "[i]f the grammatical component is concerned with the grammatical analysis of linguistic entities (…), this component should not include descriptions of psychological or physical entities that are part of the extra-linguistic context" (2008b: 98). Therefore, in the FDG model defended by Rijkhoff, "the grammatical component is strictly separated from the external/situational component, which contains (features of) entities that are part of the external, physical world" (2008b: 98).[186]

Based on this idea, Rijkhoff (2008b: 88) proposes that the classical Communicative/Contextual Component is split into two different modules: one dealing with linguistic information (the Discourse Context or D-context) and the other concerning

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[186] The elements found in the external, physical world refer to the Speaker and the Addressee.

non-linguistic information (the External Context or E-context).[187] To do so, the author uses Hengeveld's (2005: 58) definition of the Contextual Component in order to distinguish two different types of information:[188] (i) "the linguistic material preceding and following an utterance in some discourse" (Rijkhoff, 2008b: 90); and (ii) the "information from the external, situational context" (Rijkhoff, 2008b: 96). The former would, then, form the Discourse Context (D-context), containing co-text information, and the latter the External Context (E-context), involving "those elements in the speech event (…) that are considered to have an impact on the form, function, or meaning of (part of) an utterance" (2008b: 90). Both would be outside the Grammatical Component. In fact, these two types of information are sharply distinguished in the Hallidayan Systemic Functional Grammar (*cf.* Halliday and Matthiessen, 2004), where discourse properties like specificity and definiteness fall under the textual component, while the attitudinal content of a message forms part of the interpersonal level.

In the same fashion, the issue related to the differentiation of two types of contextual component is also addressed by Butler (2008). The comparison between Hengeveld's and Rijkhoff's approaches leads Butler to establish a distinction between the interpersonal meaning which is oriented towards the social, attitudinal, and personal context of the interaction, and the interpersonal meaning which is oriented towards the discourse context (2008: 225). As Butler explains,

> [a]ttitudinal meanings and meanings related to discourse properties are similar in some respects but different in others. They are similar in that both are concerned with how the speaker or writer chooses to present the content of what s/he wants to say: in that sense, both are broadly interpersonal in nature. They differ, however, in that *attitudinal markers are speaker-oriented*: they represent the speaker's own angle on the content, presenting it from a particular point of view, while *discourse properties such as definiteness are*

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[187] Additionally, Rijkhoff considers that the Output Component is "part of the E-context" in the sense that "[t]he actual linguistic expression, which manifests itself as a series of spoken, signed or written symbols, is an entity that is *produced and perceived in the external world* and which is, therefore, located in space and time" (2008b: 92; emphasis added).

[188] As Hengeveld writes, "[t]he CONTEXTUAL COMPONENT contains a description of the discourse domain as it has been built up during the current discourse to the extent that this is relevant to the form that subsequent utterances may take. It does not only contain a description of the content and form of the preceding discourse, but also of the actual perceivable setting in which the speech event takes place" (2005: 58).

hearer-oriented, in that they represent the speaker's assessment of the state of knowledge of the entities referred to in the discourse. (2008: 225; emphasis added).

Hence, Butler's interpersonal meaning oriented towards the discourse context coincides with Rijkhoff's D-context; whereas Butler's interpersonal meaning oriented towards the social, attitudinal, and personal context of the interaction is identified in Rijkhoff's model as the E-context. In this respect, Butler assures that "there is now a considerable measure of agreement on the need to recognize the two types of context [proposed] here" (2008: 226).[189] As detailed above, by taking into account the modifications of the FDG components proposed by Rijkhoff, the final picture of the Rijkhoffian revised model is portrayed in Figure 9 below:

E-context (External/Situational Component)		
C-context (Conceptual Component)	**G-context** (Grammatical Component) a. Interpersonal Level b. Representational Level c. Structural Level d. Phonological Level	**D-context** (Discourse Component)
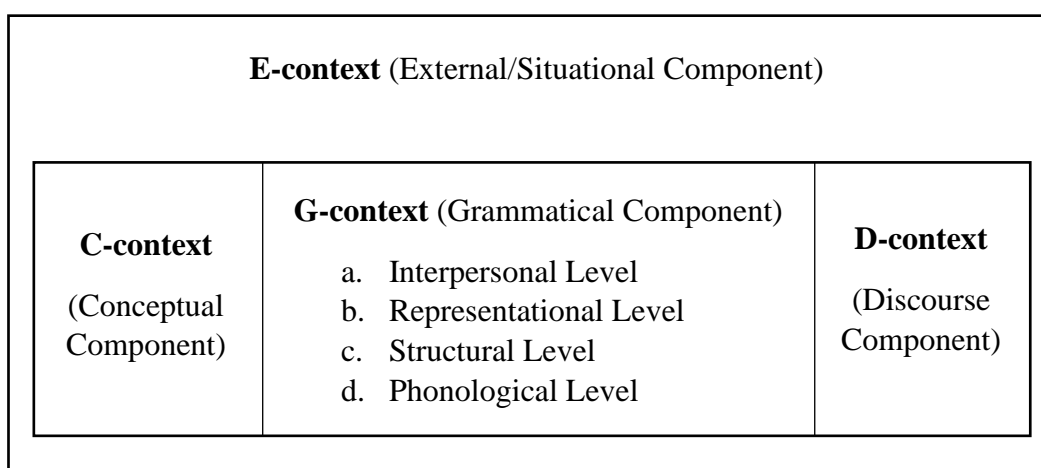
Figure 9. Rijkhoff's revised FDG model: Contextual Components in FDG[190]

Hence, in this revised version of the FDG model, Rijkhoff splits the traditional Contextual/Communication Component into two different modules (the E-context and the D-context) in order to account for "the influence of elements in the external/situational context" (2008b: 92). In other words, this contributes to the inclusion and specification of relevant aspects related to the social situation. In addition, the author establishes that "all major components in the FDG model represent some kind of context in the cognitive, anthropological, philosophical, grammatical or textual sense" (2008b: 92). Finally,

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[189] Nevertheless, Hengeveld (2008) maintains his own restrictive view of the Contextual Component, rejecting the separation of two modules as proposed by Butler (2008) and Rijkhoff (2008b).

[190] Adapted from Rijkhoff (2008b: 92)

Rijkhoff states that FDG linguists "are mostly concerned with the G-context and the D-context" (2008b: 92). Nevertheless, the functional-cognitive contribution of this dissertation attempts to shed light on the interaction among the different components, particularly when uttering a middle construction in a conversation.

Basically, Figure 9 above also summarises the version of the interaction among the different components favoured in this dissertation. As detailed in Section 2.3.2, the syntactic, semantic, pragmatic, and conceptual schemas (illustrated in Figure 4 in Section 2.3.2) representing the commonalities found in the middle prototype category can be examined in the model proposed here. In addition, the distinctive features of the metonymically-motivated extensions within the inheritance hierarchy of middles (shown in Figure 5 in Section 2.3.2) can also be captured in this model. Then, when applied to the examination of the middle construction, the components referred to in Figure 9 above would refer to the following information:

(i) The E-context, surrounding the rest of components, is related to the (chiefly positive) semantic prosody found in the middle construction (*cf*. Palma Gutiérrez, 2019b) and other attitudinal phenomena such as the degree of formality/informality with which the speaker addresses the hearer (*i.e.,* register phenomena).[191] As explained in Section 2.3.3, the middle structure is frequently found in advertising contexts focused on the promotion of a product/referent by enhancing certain inherent properties of the Subject participant; thus, the speaker's interactional/affective attitude is chiefly positive,[192] depending on the semantics of the adjunct. As Yoshimura and Taylor (2004: 312) explain, "the adverbial (…) foregrounds some (unnamed) property/ies which promote" the virtues of the middle Subject. In addition, because operators and satellites concerned with speech acts and certain types of *modality* belong to Butler's (2008: 227)

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[191] According to Butler (2008: 255), contextual information should be classified into two sub-classes: (i) affective/interactional, and (ii) social contextual. The former deals with the attitude of the speaker towards the referent, whereas the latter is concerned with register phenomena.

[192] Even though the middle construction generally has a positive semantic prosody, a negative one is also allowed, although less frequent. This is because the semantics of the middle structure typically focuses on the enhancement of the virtues of the Subject. Due to this, the middle construction is fairly productive in the field of advertisement and in the general selling transaction of products (*cf*. Palma Gutiérrez, 2019b). An example of a middle with negative semantic prosody is instantiated in this example: *'[about a car] Handles like a truck, and parking lots are not its friend*' (taken from the corpus compiled in this dissertation). Here the negative value of the comparative adverbial, when in combination with the following discourse contextual elements (*i.e.*, the difficulties to park), reflect the speaker's negative attitude towards the referent: the car in question is too big and difficult to handle and park.

interpersonal meaning oriented towards the social and personal context, and also due to the conceptual nature of the speaker's lexical choice to refer to the referent, the interrelation among the E-context, the C-context, and the (pragmatic) Interpersonal Level in the Rijkhoffian model is made explicit here. Therefore, as detailed down below, this connection links the speaker's attitude towards the referent with both the process of Compositional Cospecification and the letting modal value operating in the middle construction.[193] As Butler writes, "if we are committed to a truly functional explanation of why we use particular forms of utterances (…), then we must boldly go where few FG linguists have been before, and tackle the thorny issues of *concepts* and *context*, as well as the area of *lexical choice*" (2008: 239; emphasis added). Thus, for example, in the production of the Subject referent ('the vehicle') in the middle instantiated in (233) below, the conceptual features [MEANS OF TRANSPORT, CAR] are activated.

(233)   [about a car] *The vehicle slides easily and one can get adept to control it with ease.* (enTenTen13 corpus, Concordance section, Sketch Engine)

The speaker chooses in this case the term 'vehicle' among the different conceptual features corresponding to the referent. This choice is not only motivated by cognitive factors, but also by other complex considerations regarding the speaker's attitude towards the referent (expressed through the positive semantic prosody of the utterance) and the contextual factor of formality. A less formal option would have been 'car' rather than 'vehicle', for example, in this context. A formal register in the E-context also licences the use of interpersonal modifiers (*cf.* Butler, 2008: 249).

(ii)   The C-context, which interacts with all the rest of components, examines the metonymic schema which is common within the middle spectrum, as detailed in Section 2.3.2: [(ACTUAL) PROCESS FOR (POTENTIAL) ACTION FOR SUBJECTIVELY ASSESSED RESULT]. At this level of analysis, the target is cognitively activated as the result of the mental conceptualization of this schema. In addition, following Inchaurralde's (2004: 75) ideas, "[t]he various modes of activation for concepts in a network explain the link between words and encyclopedic knowledge dynamically".

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[193] The letting modal value found in the middle construction, as examined in Davidse and Heyvaert (2007), possesses an interpersonal nature which is reflected in both the Interpersonal Level of the G-context and the E-context in the model proposed here. The former involves the analysis of the speaker's assessment of/ attitude towards the proposition in question (*cf.* García Velasco and Rijkhoff, 2008: 25), whereas the latter refers to the affective/interactional phenomena explained in Butler (2008: 255), leading to the analysis of the semantic prosody of the middle construction.

Therefore, as explained in Section 3.1.2, the process of Compositional Cospecification (by which the most salient domain or quale is cognitively *foregrounded*,[194] determining the meaning of the verb by virtue of the meaning of the adjunct) is also reflected at the conceptual level of analysis. Hence, the connection between the Cognitive and the Grammatical Contexts is accentuated at this level of analysis. In fact, Hengeveld defines the Conceptual Component as "the driving force behind the grammatical component as a whole", since "it represents the conversion of a prelinguistic conceptual representation into the linguistically relevant semantic and pragmatic representations that are allowed by the grammar of the language concerned" (2005: 57). Also, as was mentioned above, there exist a connection between the E-context and the C-context, in that the speaker's lexical choice does not only possess a conceptual basis, but also a situational one, which depends on the speaker's personal attitude and degree of formality when referring to the referent. In this respect, Butler writes that "attitudes and their expression are also part of the conceptual component" (2008: 240).

(iii) The D-context is focused on the speaker's expression of coherence between the preceding and the following utterances in the conversation. In other words, the underlying structure of the following piece of discourse is prepared for the grammatical component. Therefore, the elements which form part of the D-context contribute to enriching the construal of the referents. Before commenting on the central component, the G-context, it should be noted how the rest of components already mentioned interact. Consider example (234) below in this regard:

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[194] As detailed in Section 3.1, according to Langacker (2013a), *focusing* is a dimension of construal which deals with two basic manifestations of cognitive nature: *foregrounding* and *scope*. The latter consists in a first cognitive process of selection of conceptual content of a given lexical unit in language use, given that "[f]or each domain in its matrix, an expression has a *scope* consisting of its coverage in that domain": (Langacker, 2013a: 62; emphasis in original). Scope is a bounded phenomenon, hence we are able to conceptualize either *entities or events* with representational fragments of either *an entity's spatial manifestation or an event's temporal occurrence*, respectively. This is also remarkable when examining the symmetry in the underlying structure of the NP and the clause. In the case of the conceptualization of an entity, we mentally access "the domain of space for the specification of its characteristic shape", whose "conception requires a certain spatial expanse, extensive enough to support its manifestation". However, such spatial scope "does not subsume the entire universe". Accordingly, when conceptualizing an event, "we mentally access a span of time long enough to encompass its occurrence, but this temporal scope does not include all of eternity" (Langacker, 2013a: 63, emphasis added). On the other hand, *foregrounding* refers to further arrangement of scope into *foregrounded and backgrounded* domains ranked for probability of activation, *i.e.,* centrality. Therefore, a domain is foregrounded by virtue of its centrality and thus it becomes highly susceptible to being activated, whereas other domains are backgrounded due to their peripheral cognitive relevance (Langacker, 2013a: 57).

(234) *A virtuous (or excellent) knife is one that cuts well*. (enTenTen13 corpus, Concordance section, Sketch Engine)

The combination of conceptual (*i.e.,* encyclopedic knowledge) and social contextual/register phenomena entails the selection of a given entry from the lexicon, in this case, 'knife', rather than 'cutter', for example (*cf.* Langacker, 2013a, on 'focusing', 'scope' and 'foregrounding' phenomena). Other external factors, like the affective/interactional information reflected by the speaker's choice are noticed in the positive (and almost sympathetic) attitude towards the referent: the qualities of possessing virtuosity and excellence are attributed to the knife in question and their value is accentuated by means of the semantics of the adverbial element ('*well*') modifying the verbal predicate.

In addition, the discourse context leads to the choice of an indefinite noun phrase, marked by the indefinite article 'a'. Thus, the resulting structure is 'a virtuous (or excellent) knife – cuts well'. On the part of the hearer, the process of language comprehension follows the same dynamics: if the speaker produces a structure such as '*a virtuous (or excellent) knife – cuts well*', this gives the hearer the following information: the speaker is referring to a determined instrument (frequently used for cooking, according to the preceding discourse chunk), and he/she does it by expressing a positive (or sympathetic) attitude towards the referent, within a context of interaction which is neutral. Finally, the speaker regards the referent as not activated (yet) in the discourse, so it cannot be recoverable by the hearer and must be introduced in the conversation through indefinite referencing. This is because genericity phenomena, although often discussed in relation to definiteness and specificity (*i.e.*, at the Discourse-Referential layer), are in fact better understood at the level of the proposition than at the level of the NP (*cf.* Rijkhoff, 2008b: 104).

(iv)   Finally, the G-context accommodates the Interpersonal, Representational, Expression/Structural, and Phonological Levels.[195] As can be observed, Figure 10 below zooms in on the Grammatical Component by adding the Rijkhoffian concentric

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[195] The Phonological Level is not represented in Figure 10.

distribution of layers and establishing a vertical dotted line to show the symmetry in the underlying structure of the middle Subject and the verbal predicate.[196]
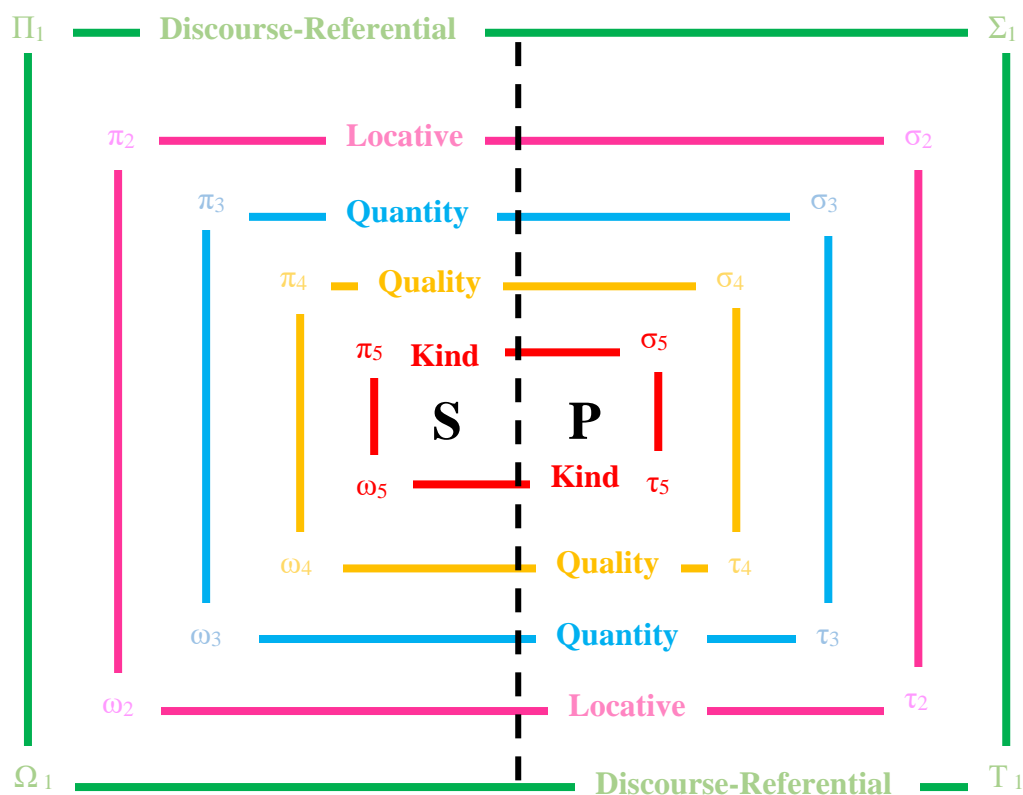
Figure 10. Symmetry in the underlying structure of the middle Subject and the verbal predicate within the G-context

As shown in Figure 10 above, the internal distribution presented in Rijkhoff's (2008a, 2008b) work is respected here. That is, the outermost layer, the Discourse-Referential layer, contains the (pragmatic) Interpersonal Level of analysis, whereas the rest of layers (from the Locative to the Kind layers) correspond to the (semantic) Representational Level. In addition, the Expression/Structural Level will depend on the potentially combinatory elements in the middle construction allowed in the English language. However, some elements are modified in Figure 10 above with respect to Rijkhoff's original proposal. The reanalysis involves three main ideas: (i) the Rijkhoffian

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[196] Contrary to Rijkhoff's (2008a, 2008b) original proposal, the dotted dividing line is represented here in a vertical position and the layers are numbered from the outermost to the innermost layers in order to facilitate the top-down reading of the figure in the sense of the model of grammar presented by Hengeveld (2004, 2005).

analogy between the NP and the clause within the Grammatical Component attempts to elaborate a universal, crosslinguistic model, whereas the scope of this dissertation focuses on the analysis of the English middle construction; (ii) the numbering of the layers is inverted, now from the outermost to innermost ones in order to incorporate Hengeveld's top-down hierarchical reading, as explained hereunder; and (iii) the Quality layer running here from $\omega 4$ (for the middle Subject) to $\pi 4$ (for the verbal predicate), which is left unexplained in the work of Rijkhoff, is here reanalysed in terms of the symmetrical processes of Cospecification and Coercion, as detailed down below in this section (see also Palma Gutiérrez, 2019a: 180-181 in this regard).

The Rijkhoffian five-layered model of grammar follows a *bottom-up concentric and symmetrical* distribution of layers, from the innermost to the outermost. However, Hengeveld's (2004, 2005) proposal presents a *top-down* model in which the different levels at the Grammatical Component (Interpersonal, Representational and Expression) interact among them as well as with the Cognitive and Contextual components. In Figure 10 above, the Rijkhoffian concentric distribution of layers is reversed (now from outer to inner layers) in order to maintain the idea of the symmetry of the underlying structure of the middle Subject and the verbal predicate, although incorporating Hengeveld's top-down analysis which includes the examination of the E-context, the C-context, and the D-context. Therefore, the revised model favoured here for the analysis of the middle construction in English follows a *top-down concentric and symmetrical organization of layers* which provides a complex and systematic way of representing the prototype effects of the English middle construction in its entirety.

Let us comment on the specifications of the different layers according to the analysis of the middle construction in English. The Discourse-Referential layer (dealing with the Interpersonal Level of analysis) involves the pragmatic function of Patient(Enabler)-profiling and Agent-defocusing (as already explained in Figure 4 in Section 2.3.2). As García Velasco and Rijkhoff comment, "[s]ince all pragmatic aspects that determine the actual form of the linguistic expression must be specified at the interpersonal level, pragmatic functions such as Topic and Focus are also added to the schema at this level" (2008: 11).[197] Therefore, this pragmatic function is directly

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[197] See also Cornish (2004: 117), who states that "the assignments of Topic and Focus functions (…) clearly fall within the Interpersonal Level (…) – the nature of these pragmatic functions [argues] strongly in favour of the topdown relationship between the three descending levels of (respectively) Interpersonal,

associated with Davidse and Heyvaert's (2007) letting modal value attributed to the middle construction (as attested in Section 2.3.1.1). This type of subjective modality (the letting modality) refers to the speaker's subjective assessment of the conduciveness of the middle Subject to the action denoted by the verbal predicate, hence the connection between the G-context and the E-context is palpable here.

Accordingly, the subordinate set of layers (from the Locative to the Kind ones) deals with the Representational Level of analysis and they contribute to the semantic commonality found along the middle spectrum, as illustrated in Figure 4 in Section 2.3.2: [X (by virtue of some property P) IS SUBJECTIVELY ASSESSED BY THE SPEAKER AS BEING CONDUCIVE TO ACT].

Finally, the Expression/Structural Level of analysis coincides with the morphosyntactic analysis permitted in the English middle construction, which is summarised into the schema [N – V – (Adv)], as explained in Figure 4 in Section 2.3.2. This versatile schema allows for the incorporation of less prototypical structures into the middle spectrum, provided they also fulfil the semantic, pragmatic, and cognitive schemas proposed here.

In addition, two main specifications/modifications at the Representational Level with respect to Rijkhoff's original proposal are presented here: one is located at the Quantity layer for the verbal predicate [π_3]; and the other main distinction occurs at the Quality layer in the symmetrical line between the middle Subject [ω_4] and the verbal predicate [π_4]. The former modification refers to the fact that the middle construction does not generally possess any of the traditional *aspect phenomena* included at this layer (such as semelfactive and iterative), but it frequently involves a different aspect, namely emphasizing its *potentially* iterative nature (combined with a non-eventive status). In general terms, "[t]he middle construction seems to follow the semantics of generic statements given that both possess a *potentially iterative aspect* and [also] due to their

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Representational and Expression, which structure the new model". Therefore, with this subsuming, top-down relationship between the superordinate Interpersonal Level and the subordinate Representational one, Focus assignment may have "an effect on the semantic nature of the predicator selected at the lower Representational level" (Cornish, 2004: 142). In other words, "[a]n important reason to situate pragmatic functions at the interpersonal level is that the selection of a predicate at the next level down, the representational level, is sensitive to the information status of constituents" (Hengeveld, 2004: 373).

non-eventive nature" (Palma Gutiérrez, 2019a: 171; emphasis added).[198] Therefore, the incorporation of this potential value at the Quantity layer proposed here is also linked to both the Location layer and the C-context. It is connected to the Location layer referring to Tense in that it usually coincides with the typical tense occurring in the middle structure, *i.e.*, the Present Simple, emphasizing the typical generic and non-eventive nature of the construction. Additionally, the potential value of middles is also connected to the C-context in that it reflects the 'POTENTIALITY FOR ACTUALITY' part of the high-level cognitive schema underlying the middle construction.

On the other hand, the second modification at the Representational Level regarding Rijkhoff's original model, as it is proposed here, is an attempt to fill the left-sided empty spaces at the Quality layer. In Figure 10 above, this is illustrated by the symmetrical line between the middle Subject [ω_4] and the verbal predicate [π_4], whereas the original diagram in Rijkhoff's work showed this line as dotted, pointing at the non-existence of grammatical operators at this layer. However, as discussed in Palma Gutiérrez (2019a), the left-sided Quality layer could be considered "the cradle of both processes, Cospecification and Coercion, as semantically symmetrical operations in the study of the underlying structure of both the nominal and the predicate, respectively" (2019a: 181). These processes are also connected to the speakers' cognitive representation of the referents (by virtue of their encyclopedic knowledge of the world) in that they involve a conceptual-semantic relationship which leads to the activation of the target, as explained down below (*cf.* Barcelona, 2011: 23). As detailed in Section 3.1.2, the processes of Cospecification and Coercion are two sides of the same coin and they can be explained in terms of the *qualia* structure found in each case. As there must be a *semantic* symmetry in the underlying structure of both the middle Subject and the verbal predicate at the Representational Level of the G-context,[199] then such *qualifying* connection (established by virtue of the *qualia* structure) should be represented at the *Quality layer*, linking [ω_4] and [π_4], respectively. Thus, the lexical-semantic linking of

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[198] Nevertheless, as already explained in Section 2.3.2.1, according to Iwata (1999), in certain contexts, the middle construction can also imply an eventive nature when expressed in other than the Present Simple tense, that is, when occurring in the Past or the Progressive. Therefore, eventiveness would alter the typical *potentially iterative aspect* of middles, turning now into either semelfactive or iterative aspect, depending on the number of times the action happened/is happening.

[199] *Cf.* Cortés Rodríguez and Mairal Usón (2013: 224-226).

the semantics of the referent and the meaning of the verb is related to the process of Cospecification/Coercion.

Furthermore, even though the left-sided space of the quality layer ($\omega_4 - \pi_4$) serves to accommodate the processes of Cospecification and Coercion, the complete process of *Compositional* Cospecification does not occur at the Quality layer, because the import of other elements at different layers is needed. Hence the process of Compositional Cospecification depends on interpersonal attitudes, more complex mental conceptualizations, and other external phenomena. That is to say, it relies on the speakers' subjective assessment of the virtues of the referent, the speakers' encyclopedic knowledge, and other social/affective factors like their (positive) attitude towards the referent. Hence the interconnection between the Quality layer at the Representational Level, the C-context, and the E-context, respectively, is stressed at this point of the analysis. As Yoshimura and Taylor write, "*knowledge* about an entity may be relevant in *semantic composition* and may trigger certain interpretations of words in *context. Such knowledge, therefore, needs to be incorporated into lexical semantic representations*" (2004: 305; emphasis added). This is why, then, the originally empty spaces at the Quality layer in the Rijkhoffian model are marked here as the 'cradle' of the symmetrical processes of Cospecification and Coercion. Such 'lexical semantic representations', although influenced by cognitive and situational phenomena, are here cradled at the Quality layer of the Representational Level.

Nevertheless, the status of *qualia* structure requires some discussion at this point. It is true that the theory of *qualia*, as presented in Pustejovsky's (1991, 1995) work, is not based on inflection but rather on lexical-semantic grounds. However, in the model proposed here, the processes of Cospecification and Coercion are located at the inflectional left-sided space (*cf.* Palma Gutiérrez, 2019a). Additionally, the analysis of *qualia* structure in connection to the middle construction is also examined from a cognitive perspective in the work of Cortés-Rodríguez and Mairal Usón (2013), Yoshimura (1998) and Yoshimura and Taylor (2004). For instance, Cortés-Rodríguez and Mairal Usón (2013: 226) relate the cognitive phenomena of focalising prominence and perspectivization with the foregrounding of a certain quale (or some qualia). As the authors propose,

[d]epending on which quale is foregrounded a given predicate will have a specific syntactic realization, i.e., foregrounding is in fact the effect of the cognitive operations that act as external constraints. (Cortés-Rodríguez and Mairal Usón, 2013: 226)

Following this line of analysis, in this dissertation, the analysis of *qualia* structure is intended to involve the interconnection between the Grammatical and the Conceptual contexts. Therefore, the symmetrical processes of Cospecification and Coercion are symbolically located here at the Representational Level (particularly at the Quality layer) because they deal with *lexical-semantic* information which is directly associated with the nature of the topicalised participant and the action described by the predicate. Consider example (235) below in this regard:

(235) [about a car] *The Midnight Thunder drives smoothly*. (enTenTen13 corpus, Concordance section, Sketch Engine)

The basic lexical-semantic process by which the semantics of either the noun or the verb is specified is also influenced by cognitive factors dealing with the speaker's encyclopedic knowledge of the referents. For instance, the speakers' shared knowledge of the world allows the cataphoric expression '*The Midnight Thunder*' to refer to a particular type of car. In addition, the semantics of 'car' and 'drive', according to the speakers' encyclopedic knowledge, reveals a telic connection (Q_T) in that a car is made to be driven (by someone). This is basically the process of Cospecification. Up to this point of analysis, it is attested how the C-context and the G-context (particularly the Representational (semantic) Level) are connected, according to *qualia* structure.

Additionally, the incorporation of the semantics of the adjunct 'smoothly' in (235) above supposes a further step in the analysis of the structure, *i.e.,* the process of Compositional Cospecification. Here, the speaker is subjectively assessing the car in question as being conducive to the driving action in a smooth way. Such personal assessment is examined at the Interpersonal Level of the G-context in that it determines the pragmatic functions of Topic/Focus. Furthermore, it also has some impact on both the C-context (by virtue of the speaker's encyclopedic knowledge) and the E-context (in that it involves the affective/interactional information reflected by the speaker's positive attitude towards the virtues of the car). Hence, the driving activity is carried out *smoothly* not because it is meant to do so (which would refer to its Q_T), but rather because the car possesses certain inherent qualities which are subjectively assessed by the speaker as

being conducive to the action denoted in the way specified by the adjunct. Of course, these inherent qualities do not refer to the telic value mentioned above, but to the different internal mechanisms integrated in the car, which the speakers know by virtue of their encyclopedic knowledge: the engine, the braking system, the pedals, etc. All these elements, represented as the Q_C mode in terms of *qualia* structure, suppose a shift from the telic to the constitutive *qualia*-foregrounding process in Compositional Cospecification. Example (235) above follows the archetypal pattern found in action-oriented middles, $[Q_T \rightarrow Q_C]$. The whole process that instantiates the interaction among the different levels of analysis within the process of (Compositional) Cospecification is illustrated in Figure 11 below:

Cospecification 'car' – 'drive' →

Telic value (a car is made to be driven): (Q_T)

Lexical-semantic and Cognitive specification

(Representational Level in G-context + C-context)

⬇

Compositional Cospecification 'car' – 'drive' – 'smoothly' →

Constitutive value (the car drives well due to its constituent parts): (Q_C)

Interpersonal, Cognitive, and Situational specification

(Interpersonal Level in G-context + C-context + E-context)

Figure 11. Interaction among levels at both Cospecification and Compositional Cospecification: From Q_T to Q_C

Therefore, if the basic *descriptive qualia* analysis (focused on the processes of *Cospecification and Coercion*, but not on the whole process of Compositional Cospecification) is located at the Representational Level, then, it could be explained how the *semantics* of the middle construction 'cospecifies' / 'coerces' a particular reading of the nominal/verb, respectively (*cf*. Yoshimura and Taylor, 2004: 315).

On the other hand, the process of *qualia*-foregrounding occurring at the complete process of Compositional Cospecification (which includes both the speaker's subjective assessment through the incorporation of the semantics of the adjunct, as well as the affective/interactional information reflected by the speaker's (positive) attitude towards the referent) is better understood as a combination of interconnections among different levels: the Interpersonal Level of the G-context, the C-context, and the E-context.

In addition, contextual discourse information (located at the D-context) can also enhance the grammaticality of some middle structures by means of "the foregrounding of an appropriate quale" (Yoshimura and Taylor, 2004: 311). For instance, consider example (236) above in this regard:

(236)   *Tickets will go on sale soon, and <u>these lovely afternoons sell out quickly</u>.*
        (WebCorp: The Web as Corpus. Last accessed 08/11/2015)

In example (236) above it is difficult to identify any *quale/qualia* in the semantic representation of the middle Subject 'these lovely afternoons' which could be related to the commercial transaction. That is, neither dictionary nor encyclopedic definitions of the concept 'afternoon' make any reference to the selling process occurring in the utterance. Thus, the concept of 'afternoon' is not directly associated with any inherent *qualia* relying on the facilitation of the tickets' sale. Nevertheless, with the appropriate discourse contextual information, the structure represented in (236) above can undoubtedly be conceived of as a proper structure within the type of action-oriented middles. Consider the imaginary dialogue fragment shown in (237) below in this regard:

(237)   [dialogue between a ticket seller and his employee]
        a.   *Tickets will go on sale soon, but we close for two days and we need to concentrate sales after it. When do you think we will sell more tickets?*
        b.   *Well, now that spring is coming, I think <u>these lovely afternoons will sell out quickly</u>. In fact, much better than mornings.*

In this case, the discourse setting enriches the construal of the 'afternoons' in question by attributing to them certain inherent properties which are subjectively assessed by the speaker as being conducive to the commercial transaction. Hence the afternoons in question are presented as a financially beneficiary time of day for the tickets selling activity. Moreover, such 'lovely spring afternoons' are considered more beneficial than mornings. In fact, the speaker's positive (and even sympathetic) attitude towards the

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referent is not only expressed by the semantics of the adverb 'well', but it is also intensified by the interpersonal/affective value added to the referent due to the modifier 'lovely'. In this way, the semantics of 'well' (occurring at the σ_4 space) would have some impact on the E-context in that it reveals the speaker's positive attitude towards the referent, whereas the semantics of 'lovely' (a qualifying lexical satellite occurring at the τ_4 space) would have some impact on the Interpersonal layer of the G-context in that it reflects how an operator can modify the referent and add interpersonal meaning to the construction.

As way of conclusion, let us illustrate the analysis of the prototypical ergative-like middle constructions shown in (238) and (239) below, where the different levels and their interconnections are examined. Of relevance are the distinctions found in these examples in terms of the (non)actuality of the events, the situations involving the utterances, and other factors, as detailed hereunder:

(238) *Use <u>firm or extra-firm tofu</u> for this recipe, as <u>it cuts easily</u> and holds its form.*

(239) *To my joy, I discovered <u>the soil under the black cloth</u> is gorgeous. It has been protected under cover for a whole year. <u>It cuts easily</u> with a spade and is the texture of a rich piece of chocolate mud cake.* (enTenTen13 corpus, Concordance section, Sketch Engine)

The prototypical ergative-like middles expressed in these two examples incorporate the verbal predicate 'cut' and the facility-oriented adjunct 'easily'. Their Subject participants are expressed by cataphoric referencing with the pronoun 'it' and they correspond, respectively, to 'firm or extra-firm tofu' and 'the soil (under the black cloth being covered for a whole year)'. In both cases, the Subject referents correspond to the prototypical patientive entities. The rest of elements form part of the D-context, contributing to enriching the construal of the referents. However, certain elements and implications occurring at different levels of analysis suppose a contrast between these two examples, particularly at the G-context. Consider the analysis of (238) and (239) above in these terms:

Both examples reveal a positive semantic prosody at the E-context, where the speakers' affective/interactional manifestations reflect a positive personal/attitudinal position regarding their respective referents. Such positive stance is also connected to the

Expression Level by means of the incorporation of the facility-oriented adjunct 'easily' in both cases. The semantics of the adjunct (analysed at the Representational Level, particularly at the right-sided space of the Quality layer, [σ_4], which accommodates adverbs of manner) enhances the conduciveness of the referent with respect to the action denoted. Hence, the semantics of the adjunct promotes the virtues of the referents regardless of the abilities of the implied Agents. Consequently, the semantics of the adjunct also contributes to both the process of Focus assignment at the Interpersonal Level and the shift of semantic importance from telic to constitutive *qualia* by virtue of the speaker's encyclopedic knowledge (*i.e.,* the process of Compositional Cospecification) at the C-context. In addition, the social contextual information (mainly involving register phenomena) at the E-context reveals that in both cases there is a neutral register, although a bit more informal in (239), as it includes other discourse contextual (D-context) elements like 'gorgeous' and 'a rich piece of chocolate mud cake' which tip the balance in favour of a more informal situation. In fact, example (238) forms part of a written text (a recipe), whereas example (239) is a chunk of a spoken text, contributing to a more informal interpretation.

The D-context involving both examples displays coherence between the previous and the following chunks of discourse, as well as grammatical cohesion within the utterances. Coherence in example (238) is reached because the discourse entails the interaction between the writer and the reader of the text in question, *i.e.,* a recipe in which one of the steps is the cutting of firm tofu. One of the cohesive elements found in example (238) is the use of the pronoun 'it' to substitute the previously-mentioned 'firm or extra-firm tofu'. For its part, coherence in example (239) is obtained because the ideas expressed in the different sentences are logically connected to produce meaning. In addition, one of the cohesive elements found in example (239) refers to the use of the pronoun 'it' to refer anaphorically to the previously-mentioned 'soil'. In turn, the speaker's choice of the pronoun 'it' to substitute the respective referents is not only examined at the D-context, but also at the Interpersonal Level, as detailed down below.

Regarding the factors involved in the analysis of the C-context, the speakers' encyclopedic knowledge contribute to the mental conceptualization of the referents as follows: in the case of example (238), the speaker conceptualizes the idea of 'firm or extra-firm tofu' being cut easily. In addition, the speaker's knowledge of the world contributes to distinguishing how easy or difficult could be the cutting process upon

firm/extra-firm vis-à-vis silken tofu. The cutting of firm tofu is easily carried out by any Agent due to the inherent properties of the tofu in question (its Q_C, namely the ingredients or components of the product), whereas the same process is more difficult with silken tofu due to its different internal composition, resulting into the disintegration of the product and the difficulties to cut it. Thus, the speaker recommends using firm/extra-firm tofu for the recipe dealt with. Of course, the speaker's communicative intention (recommending) and the way the message is communicated (the imperative) are analysed at the Interpersonal Level. In the same fashion, the soil of example (239) above is conceptualized by the speaker as being cut easily due to the effect of certain atmospheric and other external conditions, leading to a texture or organization of the grains (the Q_C) which is easy to be cut by anyone. In fact, the speaker's encyclopedic knowledge reveals that soil under the effect of different atmospheric and external conditions is not so easily cut as the soil in question. Therefore, *qualia*-foregrounding at the process of Compositional Cospecification in both cases falls on the constitutive components of the referents (their Q_C structure).

In addition, the metonymic schema underlying both examples activates the respective targets in the mental process occurring, as represented by the high-level schema [(ACTUAL) PROCESS FOR (POTENTIAL) ACTION FOR SUBJECTIVELY ASSESSED RESULT]. In example (238), the cutting action is seen as a process ('firm tofu cuts') that is subjectively assessed by the speaker in terms of the viability of the intended result ('it is easy to cut firm tofu'). Similarly, in example (239), the cutting action is seen as a process ('soil under a black cloth and protected for a year cuts') that is subjectively assessed by the speaker in terms of the viability of the intended result ('it is easy to cut soil under these conditions'). Accordingly, as Davidse and Heyvaert explain,

> [t]he speaker asserts of the subject that it is conducive or not conducive to the agonist's action in virtue of its specific 'letting' or 'blocking' properties. (…) Occasionally, these conducive properties are explicitly named in the subject itself. (…) Often, however, the properties that make the subject conducive to the predicated action remain implicit. The conduciveness of the subject as such is part of the linguistic semantics of the construction, but what these conducive characteristics are has to be inferred from the context or from general knowledge. (2007: 65-66).

For example, a Subject referent which is modified by classifying [τ_5] or qualifying [τ_4] satellites (as the 'tofu' in (238), modified by the satellite 'firm or extra firm') will show

the conducive properties of the referent in an explicit way. Being 'firm or extra firm' takes part in the tofu's Q_C specification. Compare this with the implicit/contextual way in which the conducive features of the referent have to be inferred in (240) below:

(240)   *The paper cuts easily and cleanly, scores and folds well too*. (enTenTen13 corpus, Concordance section, Sketch Engine)

In (240) above, the extra information coming from our knowledge of the world and the contextual situation (it is a special type of paper used in handicrafts which is being advertised) allows the identification of the conducive properties of the 'paper' in question in an implicit way.

Up to this point, the analysis of examples (238) and (239) is similar to some extent. However, the examination of the specifications at the G-context shows relevant differences between the two examples.

The discourse-referential specifications at the Interpersonal Level are connected to some subordinate layers within the Representational Level, as well as with some specifications at the D-context, the C-context, and the E-context. In terms of definiteness and specificity of the middle Subjects in question (*i.e.,* the discourse-referential operators at $[\Omega_1]$), the 'firm or extra firm tofu' and 'the soil' of examples (238) and (239) above differ from each other in this way: 'tofu' in (238) is expressed as [+Definite/-Specific], whereas 'the soil' in (239) occurs as [+Definite/+Specific]. The fact that the 'soil' in (239) is [+Specific] has some impact on other layers which are connected to other specifications of the verbal predicate. For instance, this favours a [+Eventive] and [+Actual] interpretation of the utterance,[200] whereas the [-Specific] feature of the 'tofu' in (238) is linked to a [-Eventive] and [-Actual] reading.[201] Actuality is examined at $[\Pi_1]$, whereas eventiveness is analysed at the level of the proposition, depending on grammatical factors (*i.e.,* inflectional categories) expressed at $[\Pi_1, \pi_2$ and $\pi_3]$.

The [-Specific/-Eventive/-Actual] features of the 'tofu' in (238) are connected to a generic referencing process which is not only examined at the level of the NP, but also

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[200] As Rijkhoff explains, "there are two symmetries, one linking the grammatical categories REALIS and DEFINITE, the other linking IRREALIS and INDEFINITE" (2008a: 816).

[201] According to Rijkhoff, "nonactual predications are commonly under the scope of certain modal or illocutionary operators" (2008a: 816). This idea is also connected to Davidse and Heyvaert's (2007) 'letting modal value' in middles, as this value is analysed at the Interpersonal Level.

at the level of the proposition (*cf*. Rijkhoff, 2008b: 104). Thus, the generic value of the 'tofu' in (238) is expressed at the Location layer [ω_2] with the Ø article, and at the Quantity layer [ω_3] by means of the (lack of) number specification of the NP (singular for generic reference or blend of singularity and genericity (*cf*. Radden and Dirven, 2007)).[202] As stated in Palma Gutiérrez (2019a: 175-179), these inflectional features of genericity have some impact on the semantic interpretation of the NP, and at the level of the proposition, they lead to a generic reading: 'firm or extra firm tofu' in general. Accordingly, the speaker's knowledge of the world (and his/her previous experiences with different types of tofu[203]) reveals a conceptualization of the notion of 'tofu' which entails non-eventiveness in the process denoted and generic referencing in (238): in general terms, 'firm or extra firm tofu' cuts better than 'silken tofu'. Therefore, the cutting of firm tofu is always *easy* due to its composition (*i.e.,* its Q_C mode), and every time the cutting of firm tofu is carried out, the result will be the same. This is because the result is independent from the skill of any Agent; rather, it depends on the inherent qualities of the referent. Therefore, example (238) states the potentiality of the cutting event without any commitments to actual occurrences. Then, the process described possesses the typical *potential aspect* or value [π_3] traditionally assigned to the middle construction.[204] In fact, all these features favour the pragmatic pattern found in conventional middles: Patient-profiling/Agent-defocusing.

In addition, some contextual elements surrounding the middle in (238) also reinforce the [-Actual] feature and the potentially iterative value: the use of the imperative in the preceding chunk of discourse (D-context) is connected to the non-actual reading (and thus non-eventive, irrealis, potentially iterative, and generic interpretation) of the middle construction in (238). In this case, the speaker is using a command (world of discourse) to refer to an event which can potentially be brought about by the addressee

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[202] According to Barcelona (2011: 22), blends of singularity and genericity are based on the metonymic schema 'MEMBER FOR CATEGORY'. Therefore, in the case of the 'tofu' in example (238), the Subject referent does not refer to a particular tofu, but to a class or category.

[203] The middle in example (238) is introduced by 'as', forming an adverbial subordinate clause depending on the main sentence occurring in the imperative. Such adverbial value introduced by 'as' reveals that the speaker bases his/her comment on personal evidence, as he/she has certain experience with different types of tofu (firm, extra firm and silken tofu), and thus he/she has the capacity to recommend one or another according to their inherent qualities and the recipe proposed.

[204] According to Hundt (2007: 60), middles possess an irrealis mood which is directly connected to the hypothetical or *potential* processes denoted, whereas their transitive counterparts belong to the realm of realis.

(in the real world) (*cf.* Rijkhoff, 2008a: 815). Hence, the cutting of the tofu in question cannot be located in time.

Therefore, example (238) is an instance of a prototypical ergative-like middle, as it exhibits a particular temporal scope: Simple Present tense entailing a non-eventive and potentially iterative value. The situation described in (238) designates a process which has not necessarily even happened yet, nor does it need to occur in the future. Hence, a limited immediate scope of the cutting process is construed here, one in which the endpoint is not included because it might not even exist in the real world.

On the other hand, as mentioned above, the [+Specific] feature of the 'soil' in (239) reveals an eventive and actual process of cutting which is accentuated by means of certain elements co-occurring at the D-context, like the use of Simple Past forms in the previous chunk of discourse (such as 'discovered'). Hence, the cutting of the soil in question can be located in time, as it refers to a particular moment and a particular referent, and the speaker is the Experiencer of the action denoted.[205] The individuative reference expressed by the definite article 'the' at [ω_2] favours here a non-generic reading: 'the soil' in question is interpreted as a particular referent.

Nevertheless, there could be an ambiguous interpretation behind (239), revealing an underlying generic,[206] non-eventive process: according to our knowledge of the world and our experience of the world, it is possible to think that every time soil in general is under the same conditions (being under a black cloth and covered for a year), it can potentially acquire the same inherent qualities as the soil in (239) and it could always be easily cut by anyone. Then, because of the acquired Q_C mode of the soil, every time the cutting process is carried out, the result would be the same, regardless of the abilities of any Agent. This interpretation favours the potential reading of the construction, as well as the pragmatic pattern typically found in middles: Patient-profiling/Agent-defocusing.

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[205] However, the speaker of example (238) is not an Experiencer of the action denoted, even though some previous experience with different types of tofu (or at least some knowledge about tofu) is implied. The use of the imperative, in fact, accentuates the nature of the speaker in (238) as the user of a command to recommend the addressee what to do in potentially occurring situations, not as the Experiencer of the action *per se*.

[206] See Rijkhoff (2008a: 807) for a detailed analysis of the definite article interpreted as a generic rather than an individuative type of reference. See also Iwata (1999: 536) about generic and individuative types of referencing with indefinite Subject referents.

So far, the layers analysed at the G-context include the Interpersonal Level (pragmatic or discourse-referential information), and the Location and Quantity layers at the Representational Level, as well as their intricate relations and influences with other non-grammatical contexts. In the remaining layers of the G-context, other lexical-semantic specifications are examined. In both examples, there exist a connection between the Quality layer at the Representational Level and both the C-context and the E-context. This interconnection entails the processes of Cospecification/Coercion and the complete process of Compositional Cospecification. The semantic relation established between the Subject referents and their respective verbal predicates is based on the constitutive value (Q_C) in their processes of Cospecification/Coercion (respectively, [ω_4] and [π_4]). That is, the semantic relation linking the nominals 'tofu' and 'soil' with the predicate 'cut' is not based on a telic mode as it happens in action-oriented middles. Instead, the cuttability of these referents relies on the inherent features or internal components of the entities in question. In addition, in both cases, no shift of semantic importance in compositional analysis occurs when the semantics of the adverb 'easily' (examined at [σ_4]) is added to the equation. Therefore, the pattern in Compositional Cospecification revealed in examples (238) and (239) above coincides with the archetypal schema found in prototypical ergative-like middles: [$Q_C \rightarrow Q_C$]. Compare this with the schema occurring in prototypical action-oriented middles such as (241) below, as well as the pattern found in the metonymically-motivated extensions from the ergative-like prototype middle known as Agent-Instrument middles like (242) below:

(241) *With a center of gravity near its midline, <u>the bow handles like a European sports car</u>.*

(242) *So far, for me, this has been <u>a good mower</u>. It runs strong, <u>cuts smoothly,</u> and goes through grass of any thickness.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In the case of (241) and (242) above, the process of Compositional Cospecification would reveal different patterns with regards to the one found in prototypical ergative-like middles like (238) and (239). In examples (241) and (242) above, there is a telic connection (Q_T) between the Subject referents ('bow' and 'mower', respectively) and the predicates ('handle' and 'cut', respectively). Then, the incorporation of the semantic value of the adjuncts ('like a European sports car' and 'smoothly',

respectively) provoke a shift in semantic weight towards the Q_C mode in compositional analysis, revealing the pattern $[Q_T \rightarrow Q_C]$ in both cases.

As it was previously explained, the fact that the cutting events in (238) and (239) above are easily carried out reflect the speakers' subjective assessment of the qualities of the referents as being conducive to the action denoted. This would link the semantic and the pragmatic levels of analysis (Representational and Interpersonal Levels). Finally, other affective/interactional phenomena related to the semantics of the adjunct influence the speakers' positive attitude towards the referents, pointing at the interrelation among the Representational Level, the Interpersonal Level, and the E-context.

The innermost layer, the Kind layer, also reveals the interdependence between different levels of analysis, particularly between $[\sigma_5]$ and the Interpersonal Level. For instance, the *Aktionsart* of the predicate 'cut' is analysed in both cases as an accomplishment (by virtue of the features [+Change/+Duration/+Bound]), and also due to its perfective verbal aspect (according to the temporal features [+Beginning/+Ending]). This entails the occurrence of prototypical patientive referents as Subjects in the middle construction, provided their change of state. Hence this information has some impact on the pragmatic functions (Focus assignment) of the middle, revealing the prototypical pattern Patient- profiling/Agent-defocusing.

Summarising the relevant information examined in examples (238) and (239), Table 2 below shows the main coincidences and distinctions between them at the G-context, including the possibility of an ambiguous interpretation in certain situations:

LAYER	(238) Firm tofu cuts easily	(239) The soil cuts easily
$[\Omega_1]$	[+Definite/-Specific]	[+Definite/+Specific]
$[\Pi_1]$	[-Realis/-Actual]	[+Realis/+Actual]
$[\omega_2 - \omega_3]$	[pron. 'it', cataphoric ref. $\rightarrow$ Ø article – sg for generic ref.]	[pron. 'it', cataphoric ref. $\rightarrow$ def. article – individuative ref.]
$[\pi_2 - \pi_3]$	[Simple Present – Potentially iterative aspect]	[Simple Present – Semelfactive aspect (BUT: Potentially iterative aspect = ambiguous interpretation)]
$[\omega_4 - \pi_4]$	[Cospecification/Coercion = Q_C]	[Cospecification/Coercion = Q_C]
$[\sigma_4]$	[Compositional Cospecification: $Q_C \rightarrow Q_C$]	[Compositional Cospecification: $Q_C \rightarrow Q_C$]

$[\pi_5 - \sigma_5]$	[Aktionsart = Accomplishment – Verbal Aspect = Perfective]	[Aktionsart = Accomplishment – Verbal Aspect = Perfective]

Table 2. Summary of specifications at the G-context of examples (238) and (239)

Therefore, the combination of Rijkhoff's layering model and Hengeveld's top-down hierarchy can be extrapolated and reanalysed with respect to the analysis of the middle construction in English, thus narrowing the scope of examination. In this sense, the model defended in this dissertation attempts to examine the middle structure by combining the following: (i) Rijkhoff's (2008a, 2008b) concentric distribution of potential modifiers in the NP and the clause (now reversing the numbering of layers); and (ii) Hengeveld's (2004) top-down hierarchy of interacting levels. The revised model presented here allows for a systematic and complex analysis of the middle construction, accommodating cases of prototypical and peripheral instances, and pointing at the underlying interrelation not only among the Interpersonal, Representational and Expression Levels of grammar, but also among the G-context, the C-context, the E-context, and the D-context.

3.3. Summary of the chapter

In this chapter it has been shown that, by virtue of the family-resemblance analysis of the middle prototype category, diverse patterns in the process of Compositional Cospecification can be found within the different segments of the middle spectrum. Therefore, prototypical action-oriented middles are featured by the pattern $[Q_T \rightarrow Q_C]$, whereas prototypical ergative-like middles reveal the pattern $[Q_C \rightarrow Q_C]$. With regards to the metonymically-motivated extensions of these prototypes, related but not always identical patterns are manifested. On the one hand, the extensions of action-oriented middles (namely, Locative, Means, and Circumstance-of-Instrument middles) follow the archetypal schema occurring in prototypical action-oriented middles, $[Q_T \rightarrow Q_C]$. On the other hand, with regards to the extensions of the ergative-like prototype, only Experiencer-Subject middles follow the typical pattern of ergative-like middles, $[Q_C \rightarrow Q_C]$, whereas Agent-Instrument middles take the schema found in action-oriented middles, $[Q_T \rightarrow Q_C]$. This is so because in Agent-Instrument middles, as well in prototypical action-oriented middles and their extensions, there is a telic connection linking the meaning of the nominal and the semantics of the predicate which is lacking in prototypical ergative-like middles and Experiencer-Subject middles.

In addition, in this chapter, other marginal members of the middle prototype category have been examined in terms of their process of Compositional Cospecification. The case of middle structures with the predicate 'sell' is accused here, where the telic value (Q_T) is acquired by means of certain contextual factors referred to our knowledge of transactional situations and thus relating the meaning of the nominal referent and the selling event. Such telic connection is finally backgrounded due to the incorporation of the semantic value of the adjunct, which implies other pragmatic and situational aspects surrounding the social status, reputation and renown of the brand or author's product being sold (its Q_A mode), as well as other features like the internal parts or constitution of the nominal entity (its Q_C mode) and other formal features (its Q_F mode).

Then, the case of Destiny- and Result-oriented middles has also been examined in this chapter. These marginal types of middles manifest diverse patterns in terms of their processes of Compositional Cospecification, and they are characterised by the lack of

shift in semantic importance as in prototypical ergative-like middles. In fact, these peripheral types of middles can be manifested in patterns like the following ones: $[Q_C \rightarrow Q_C]$ and $[Q_F \rightarrow Q_F]$, as well as the more complex pattern $[Q_C + Q_F \rightarrow Q_C + Q_F]$.

Finally, this chapter has also offered a complex functionalist analysis that allows the incorporation of different structures to the middle prototype category by pointing at the intrinsic features of each structure depending on the lexical-semantic, discourse-pragmatic, cognitive, and situational factors involved in each case. By doing so, it has been shown how each member of the middle spectrum can be examined by virtue of its grammatical, cognitive, and contextual intrinsic distinctions. Thus, the model presented here permits a systematic, detailed, and intricate analysis of the middle construction, allowing the accommodation of both prototypical and metonymically-motivated extensions of the prototype, and pointing at the underlying interrelation not only among the Interpersonal, Representational and Expression Levels of grammar, but also among the G-context, the C-context, the E-context, and the D-context.

In the following chapter, the family of constructions presented in this dissertation is examined in terms of their frequency of occurrence in the corpus data and the elements (nominal Subject, verbal predicate, adverbial) combined in the colloconstructional units.

4. Corpus data: Results and Discussion

This chapter presents and discusses the results of the corpus data compiled. The total sample of instances analysed in this dissertation is 14099 examples (based on colloconstructional structures relying on 254 different predicates). In the figures and tables below, the total sample is distributed according to the following features: (i) the type of middle and/or metonymic extension conveyed (taking into account the nature of the nominal entity as well as the semantics of the verbal predicate); and (ii) the type of adjunct with which the structures collocate.

This chapter is organised as follows: Section 4.1 presents the data and discussion referred to prototypical action-oriented middles and their metonymically-motivated extensions (Locative, Means, and Circumstance-of-Instrument) compiled and analysed here. The sample of instances belonging to the prototypical action-oriented type analysed in this section is 3633 examples. In addition, the sample of metonymically-motivated extensions from the action-oriented prototype is made of 115 instances. Then, Section 4.2 focuses on the wide range of instances belonging to the classes of both prototypical ergative-like middles and their metonymically-motivated extensions (Agent-Instrument and Experiencer-Subject middles). The sample of instances belonging to the prototypical ergative-like type examined in this dissertation is 6801 examples. Besides, the sample of Agent-Instrument middles is 286 instances, and the sample of Experiencer-Subject middles is 1789 examples. Finally, Section 4.3 centres on corpus data related to the case of two types of marginal middles: Destiny- and Result-oriented structures. The sample of instances belonging to these two types of middles is 1475 examples.

4.1. Prototypical action-oriented middles and their metonymic extensions

As shown in Table 3 below, the structures belonging to the class of prototypical action-oriented middles selected and compiled in this dissertation are based on the following colloconstructional schema: [INANIMATE SUBJECT ENTITY + VERB ('drive' / 'handle' / 'wheel' / 'hit' / 'shoot' / 'sell' / 'read' / 'translate') + ADJUNCT]. None of these predicates is conceived as middable in Levin's (1993) work.[207] However, middle instances incorporating most of these predicates are frequently cited in the literature (particularly, those including the verbs 'drive' and 'sell'), and they are treated as proper middles.

ADJUNCT	PROTOTYPICAL ACTION-ORIENTED MIDDLES							
	Drive	*Handle*	*Wheel*	*Hit (ball)*	*Shoot (gun)*	*Sell*	*Read*	*Translate*
easily	51	100	2	--	--	3	52	5
well	499	1228	5	102	110	288	269	114
smoothly	45	15	7	--	4	--	30	0
like a dream	163	169	1	2	10	91*	13	0
quickly	1	1	5	--	3	49	50	1
fast	2	--		14	11	41	21	0
nicely	1	13	6	--	1	4	7	7
superbly	1	13	1	--	2	--	0	0
TOTAL	763	1539	27	118	141	476	442	127

Table 3. Frequency of appearance of prototypical action-oriented middles

* Instances with the predicate 'sell' do not combine with the adjunct 'like a dream', but with other *like- phrases*, as detailed below: 'like hot cakes' (71 instances) and 'like crazy' (20 instances).

The total sample of prototypical action-oriented middles compiled and shown in Table 3 above is 3633 instances. As data reveal, the most productive middles here are

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[207] In Levin's (1993) work, the predicates 'drive' and 'wheel' belong to the class of *verbs of sending and carrying*, particularly, to the group of *drive* verbs; the predicate 'handle' is included within the class of *hold* verbs; the predicate 'hit (ball)' belongs to the class of *verbs of throwing*, particularly to the group of '*throw* verbs'; the predicate 'shoot (gun)' is included within the class of *verbs of contact by impact*, particularly, in the group of *swat* verbs; the predicate 'sell' is found within the class of *verbs of change of possession*, particularly, in the class of *give* verbs; the predicate 'read' belongs to the class of *learn* verbs; and finally, the predicate 'translate' is not mentioned in Levin's (1993) work.

those incorporating the predicate 'handle' when collocated with the adverb 'well'. In fact, this is the most frequent combination occurring in the corpus examined in this dissertation, even though action-oriented middles are less productive than ergative-like structures. Other productive patterns, according to Table 3 above, are those including the predicates 'drive', 'hit', 'shoot', and 'sell', all of them in combination with the adjunct 'well'. On the other hand, middles with the predicate 'wheel' are less frequent. Consider the following instances to this respect:

(243) *The car drives well and seems very stable.*

(244) [about a car] *It's comfortable, with great seats, and it handles well.*

(245) [about a cello case] *It wheels well on smooth surfaces.*

(246) *The Nexus 4 is unlocked, and retails for $299. It sells well and gives users a great experience.*

(247) [about a brand of rugby balls] *The QB Seal is great to run in short yardage situation because it hits fast and it has an element of misdirection that can freeze/false flow defenders.*

(248) [about a gun] *My Cabot sure looks good and shoots like dream.*

(249) *The book reads easily, is informative and quite interesting.*

(250) [about a text] *I have this one on the Kindle, and it translates well. Footnotes, TOC work fine. But most of all, it's the text and the mechanics.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Even though Yoshimura (1998) and Yoshimura and Taylor (2004) vindicate that the middle construction underlies the pattern $[Q_T \rightarrow Q_C]$ in Compositional Cospecification relying on the telic connection between the Subject and the verb, the data examined in this dissertation reveals another majority trend: in terms of frequency of appearance and range of predicates, such schema only occurs in prototypical action-oriented middles (as well as in their metonymically-motivated extensions and also Agent-Instrument structures) and they are less productive than prototypical ergative-like middles, as demonstrated down below in Section 4.2.

In addition, as explained in Section 3.1.3.3, middles incorporating the predicate 'sell' do not follow straightforwardly the pattern $[Q_T \rightarrow Q_C]$ found in prototypical action-oriented middles. Anyway, 'sell' middles have been included in Table 3 above because they are relatively productive and accepted as proper middles among scholars. The peculiarity of this type of structure is that their Subject entities are cospecified by the

semantics of the predicate 'sell' in terms of their Q_T value because of our background knowledge of 'objects as transactional products', not because there is a clear telic connection between the meaning of the nominal and the semantics of the predicate. Then, the addition of the semantic value of the adverb would provoke a shift in semantic importance from such pragmatically-motivated Q_T mode to a combination of modes, namely, Q_A, Q_C and even Q_F, as represented in the formula [Q_T➔Q_A + Q_C + Q_F].

With regards to the metonymically-motivated extensions of the action-oriented type of middle, the total sample compiled here is 115 instances, distributed as shown in Table 4 below:

	Locative		*Means*		*Circumstance-of-Instrument*	
	FISH	RUN	DANCE	BOOGIE	FISH	HUNT
Easily	--	--	--	--	--	--
Well	40	1	56	1	6	--
Smoothly	--	--	--	--	--	--
Like a dream	2	1	--	2*	--	1**
Quickly	--	1	--	--	--	--
Fast	--	2	--	--	--	--
Nicely	--	1	1	--	--	--
Superbly	--	--	--	--	--	--
TOTAL	**42**	**6**	**57**	**3**	**6**	**1**
	TOTAL LOCATIVES (48)		TOTAL MEANS (60)		TOTAL CIRC.-OF-INSTRUMENT (7)	

Table 4. Frequency of appearance of Locative, Means, and Circumstance-of-Instrument middles

* The predicate 'boogie' collocates with two different *like*-phrases: 'like a dream' and 'like hell'. Example (254) below illustrates the 'like hell' instance.

** In this case, the predicate 'hunt' does not collocate with the adverb 'like a dream', but with the *like*-phrase 'like a maniac', as shown in example (256) below.

The metonymically-motivated extensions from the action-oriented prototype compiled in this dissertation are those which incorporate a Subject entity fulfilling the semantic roles of Locative, Means, or Circumstance-of-Instrument. As Table 4 above demonstrates, these types of middles mainly collocate with the adjunct 'well', hence

acquiring a facility/quality reading. The colloconstructional schemas found in these three metonymically-motivated extensions are these ones:

(i)   Locative Subject referents (semantically related to the words 'lake' and 'pitch') + Verb ('fish' / 'run') + Adjunct, as shown in examples (251) and (252) below, respectively;

(ii)   Means Subject referents (semantically related to the word 'music') + Verb ('dance' / 'boogie') + Adjunct, as instantiated in examples (253) and (254) below, respectively; and

(iii)   Circumstance-of-Instrument Subject referents (semantically related to the words 'rod' and 'camera') + Verb ('fish' / 'hunt') + Adjunct, as shown in examples (255) and (256) below, respectively:[208]

(251)   *The lake fishes so well* *that all methods will work depending on the game you like to play; whether you're fishing off the bank, in a float tube, or trolling some big and ugly flies behind a boat.*

(252)   *[about the 2nd Annual Night Bocce World Championship at the Atkinsons Park Field] The pitch runs fast.*

(253)   *Best of all, the music dances well. Toward the end, you'd swear that you were hearing a wry, delicate and almost cubist form of ragtime.*

(254)   *This album (…) is loud and proud, offers no concessions to either contemporary music or political correctness, and boogies like hell.*

(255)   *I wanted to share just how pleased I am. This rod fishes so well!*

(256)   *That camera hunts like a maniac though, but its output is surprisingly good.* (enTenTen13 corpus, Concordance section, Sketch Engine)

These types of middles are the least productive in the corpus examined. Besides, the range of predicates (in combination with nominal entities with the semantic roles of

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[208] The predicates 'fish', 'run', 'dance', 'boogie', and 'hunt' are conceived as non-middable in Levin's (1993) work. The author classifies these predicates as follows: the verbs 'fish' and 'hunt' belong to the class of *verbs of searching*, particularly, to the group of *hunt* verbs; the predicate 'run' is classified within the set of *verbs of motion*, particularly, within the group of *run* verbs; and the predicates 'dance' and 'boogie' are found within the class of *verbs of motion*, particularly, in the group of *waltz* verbs.

Locative/Means/Circumstance-of-Instrument) is more restricted than in other types of middles.

4.2. Prototypical ergative-like middles and their metonymic extensions

The most productive structures compiled in this dissertation are those belonging to the class of prototypical ergative-like middles. The total sample of instances analysed to this respect is 6801. This type of middle structures includes the following verb classes according to Levin's (1993) classification, taking into account the number of instances compiled in each case:

(i)   1114 examples including *coil* verbs (distributed as shown in Figure 11 below);

(ii)   342 instances incorporating *slide* verbs (distributed as shown in Figure 12 below);

(iii)   478 examples including *cut* verbs (distributed as shown in Figure 13 below);

(iv)   837 instances including *carve* verbs (distributed as shown in Figure 14 below);

(v)   547 examples incorporating *mix* verbs (distributed as shown in Figure 15 below);

(vi)   552 instances including *amalgamate* verbs (distributed as shown in Figure 16 below);

(vii)   13 examples incorporating *shake* verbs (distributed as shown in Figure 17 below);

(viii) 700 instances including *tape* verbs (distributed as shown in Figure 18 below);

(ix)   228 examples incorporating *break* verbs (distributed as shown in Table 5 below);

(x)   128 instances including *bend* verbs (distributed as shown in Table 6 below);

(xi)   318 examples incorporating *cooking* verbs (distributed as shown in Figure 19 below); and

(xii)   1544 instances including *other alternating verbs of change of state* (distributed as shown in Table 7 below).

The colloconstructional schema found across these prototypical ergative-like middles is the following: [INANIMATE SUBJECT ENTITY + VERB + ADVERB]. In the following tables and figures, the sample of prototypical ergative-like middles is shown with respect to the number of instances compiled in each case.

	Coil (46)	Curl (145)	Loop (50)	Roll (370)	Spin (217)	Twirl (22)	Twist (122)	Whirl (45)	Wind (97)
effortlessly	0	0	0	27	0	0	5	0	2
quickly	0	3	0	0	0	0	4	0	0
fast	0	1	1	0	95	0	0	1	0
like- phrase	38	124	29	8	24	21	63	43	85
well	7	10	16	150	35	1	4	1	1
easily	1	7	4	185	63	0	46	0	9

Figure 11. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 116) coil verbs

As shown in Figure 11 above, the range of *coil* verbs selected in this dissertation are the following ones: 'coil', 'curl', 'loop', 'roll', 'spin', 'twirl', 'twist', 'whirl', and 'wind'. The sample of *coil* verbs examined is 1114 instances. The most productive structures, as corpus data reveal, are those in which the predicate 'roll' is combined with the adjuncts 'easily' and 'well'. Other prominent structures include the combination of the predicate 'curl' and a *like*-phrase adjunct. Consider the following instances, representing productive patterns incorporating *coil* verbs and forming middle structures:

(257) *This premium rubber hose resists kinking, coils easily, and is flexible to - 25ºF.*

(258) *But my hair curls like crazy since about a year.*

(259) *Satin cord has a close approximation to the look and feel of silk, also it holds the shape of the knots and loops well.*

(260) *I also purchased an electric heater that rolls easily from room to room, great money saver.*

(261) *Apart from that, ceramic ball bearings are also lighter, have smoother surfaces, spin faster, harder and require lesser lubrication than traditional steel balls.*

(262) *The skirt doesn't twirl well enough.*

(263) *Murano bed charms have the patented Pandora sterling silver interior thread that twists easily to your bracelet or necklace.*

(264) *The spectral guitars that whirl like a haunted funfair.*

(265) [about curly hair] *The way that singular curl spirals over her ear. The way it winds like a silken staircase, on and on and on.* (enTenTen13 corpus, Concordance section, Sketch Engine)

The following figure shows the corpus data related to the middle structures compiled here incorporating Levin's (1993) *slide* verbs, namely, 'bounce', 'float', 'move', and 'slide'. The sample size illustrated in Figure 12 below is 342 instances, distributed as follows:

Título del gráfico

	Bounce (50)	Float (92)	Move (69)	Slide (131)
■ with ease	0	5	4	
■ effortlessly	0	5	13	9
■ quickly	2	0	0	3
■ fast	2	0	0	1
■ like-phrase	14	10	0	6
■ well	29	40	2	1
■ easily	3	32	50	107

■ easily ■ well ■ like-phrase ■ fast ■ quickly ■ effortlessly ■ with ease
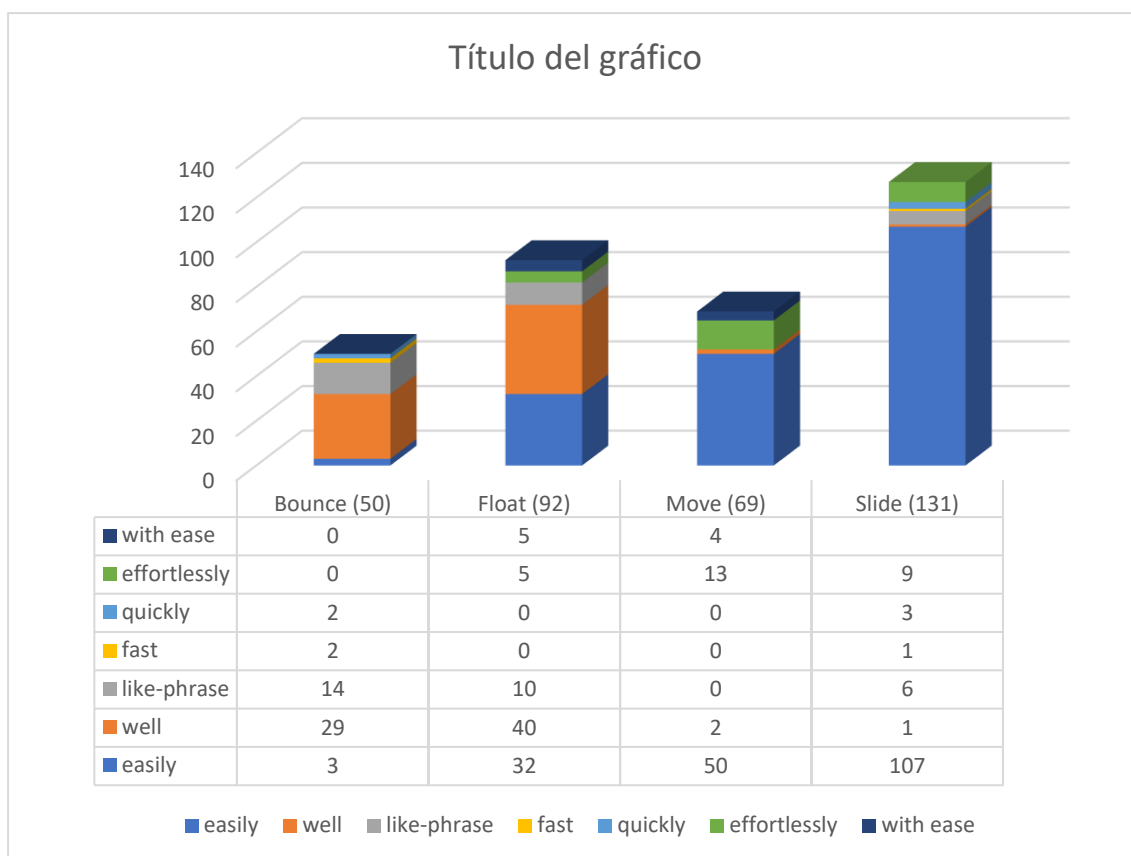
Figure 12. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 133) slide verbs

As shown in Figure 12 above, the most productive structures, according to corpus data, are those in which the predicates 'slide' and 'move' are combined with the adjunct 'easily', as well as those combinations of the predicates 'float' and 'bounce' with the adverb 'well'. Consider the following instances, representing productive patterns found across *slide* verbs and forming middle structures:

(266) *Meat is done when <u>a fork slides easily</u> in and out.*

(267) *<u>The sword moves easily</u> in the hands, is extremely sharp, and is still of a robust design for cutting practices.*

(268) *<u>Foam</u> is durable, <u>floats well</u> and is ideal for panfish dry flies.*

(269) *<u>A properly inflated soccer ball bounces well</u> when you drop it on a hard floor.* (enTenTen13 corpus, Concordance section, Sketch Engine)

With regards to Levin's (1993: 156) class of *verbs of cutting*, two groups of verb classes have been selected and compiled here. Firstly, as shown in Figure 13 below, the set of *cut* verbs examined here are these ones: 'clip', 'cut', 'saw', 'scrape', 'scratch', and

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'slash'. The sample of middle instances incorporating these *cut* verbs is 478 examples. Then, as shown in Figure 14 down below, the set of *carve* verbs analysed in this dissertation are the following: 'bore', 'bruise', 'carve', 'chip', 'crush', 'dent', 'drill', 'fillet', 'grate', 'grind', 'mash', 'mow', 'nick', 'perforate', 'pulverize', 'prune', 'shred', 'slice', 'squash', and 'squish'. The sample of middle instances incorporating these *carve* verbs is 837 examples.

Título del gráfico

	Clip (49)	Cut (140)	Saw (13)	Srape (13)	Scratch (259)	Slash (4)
■ smoothly	0	3	0	0	1	0
■ with ease	0	1	0	1	0	0
■ effortlessly	2	0	0	0	0	0
■ quickly	2	6	0	3	0	0
■ fast	0	3	1	0	0	0
■ like- phrase	1	29	2	1	4	1
■ well	3	31	6	0	0	0
■ easily	41	67	4	8	254	3

■ easily ■ well ■ like- phrase ■ fast ■ quickly ■ effortlessly ■ with ease ■ smoothly

Figure 13. Frequency of appearance of prototypical ergative-like middles combined
with Levin's (1993: 156) cut verbs

As shown in Figure 13 above, the most productive middle pattern among the structures examined here is the one in which the predicate 'scratch' collocates with the adjunct 'easily'. Other relevant patterns include the combination of the predicates 'cut' and 'clip' with the adverb 'easily'. Consider the following instances representing some of the most recurrent middle patterns with regards to Levin's class of *cut* verbs:

(270)   *Wash crystal ware gently by hand and use a soft dishcloth for drying, as crystal glass is fragile and scratches easily.*

(271)   *California redwood cuts easily and cleanly if your knife is properly sharp, and doesn't spilt readily.*

(272) *The stick clips easily and lights without a problem.*

(273) *Padauk saws well, but because of its hardness and density, it requires a slow saw rate.*

(274) [about watch glass] *Very hard in addition to shatter immune; however, scrapes quickly.*

(275) *Dry lawn slashes easily, and cuttings deliver much more consistently.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Now, consider Figure 14 below with regards to the adverbial distribution and frequency of appearance of middle instances incorporating Levins's class of *carve* verbs:

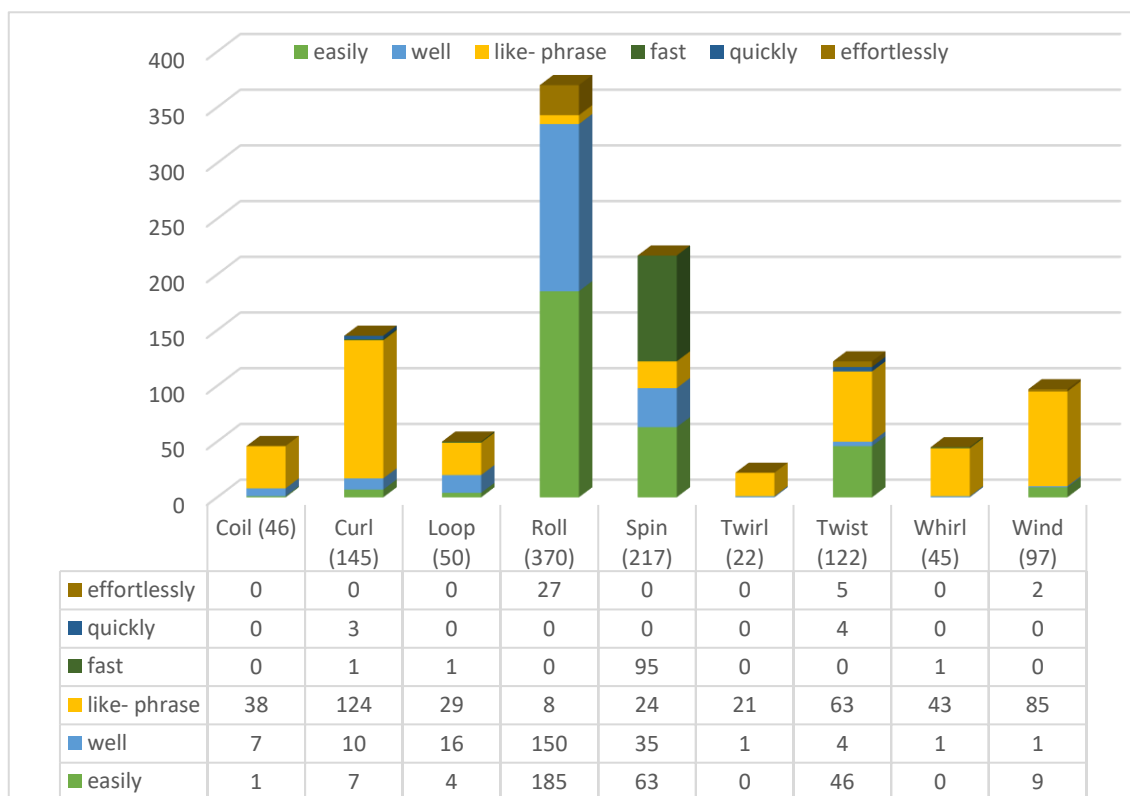|	Bore (1)	Bruise (149)	Carve (36)	Chip (172)	Crush (55)	Dent (166)	Drill (12)	Fillet (2)	Grate (16)	Grind (31)	Mash (22)	Mow (2)	Nick (3)	Perforate (6)	Pulverize (3)	Prune (7)	Shred (84)	Slice (63)	Squash (3)	Squish (4)
rapidly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
smoothly	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0
fast	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
with ease	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
quickly	0	0	0	2	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0
like- phrase	0	8	2	0	3	27	0	0	1	1	1	0	0	1	2	0	11	9	0	0
well	0	0	14	0	0	0	3	2	9	22	8	2	0	0	0	6	6	25	0	0
easily	1	141	18	170	51	139	7	0	6	6	13	0	3	3	1	1	64	29	3	4

Figure 14. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 157) carve verbs

As shown in Figure 14 above, the most productive structures, according to corpus data, are those in which the predicates 'bruise', 'chip', and 'dent' are combined with the adjunct 'easily'. Other frequent patterns include the combinations of the predicates 'crush', 'shred', and 'slice' with the adverb 'easily'. Consider the following instances, representing productive patterns found across *carve* verbs and forming middle structures:
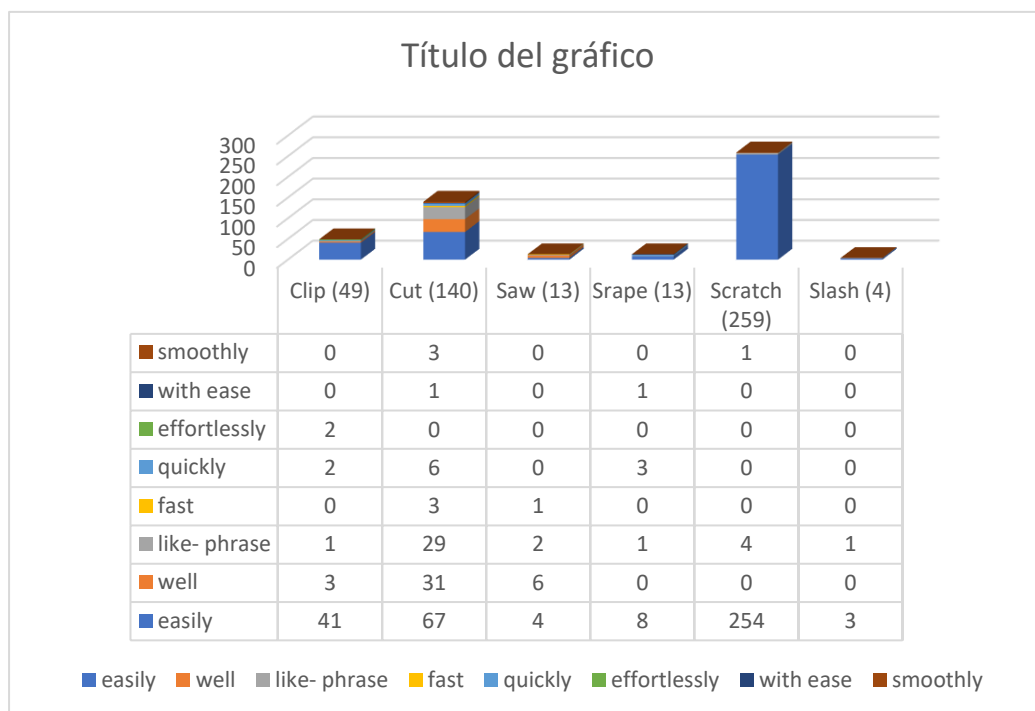
(276) *A simple way of dealing with excess basil is to chop it fine with a very sharp knife (basil bruises easily) and whirl it in a food processor with a few tablespoons of olive oil.*

(277) *This product has a great colour. It is a very soft pink and lasted me 5 days, which is great for any nail polish if you wash your hands a lot. Chips easily.*

(278) [about a refrigerator] *My main problem with this unit was that the front dents easily.*

(279) *The roast is done when it shreds easily with a fork.*

(280) *Brin to a gentle simmer and simmer gently, regularly skimming off any froth and fat from the surface, for about 1 ½ hour, or until the meat crushes easily when you squeeze a piece.*

(281) *Farm's Georgia Gold is a perfectly balanced cheddar: smooth yet at the same time sharply tangy, a fine crumble but slices easily without falling apart.*

(282) *A large-tipped bar with nearly parallel sides bores easily and does not tend to jam.*

(283) [about a type of wood] *Purpleheart turns smoothly and carves well as long as sharp tools are used.*

(284) [about plexiglass] *It drills easily, and you can attach hinges directly to it.*

(285) [about Red Emperor fish] *It is a large enough fish that fillets well.*

(286) [about a type of cheese] *It's semi-hard and grates well.*

(287) *Use raspberries sparingly, as the seeds don't grind well into the puree, unless you use a very high-power blender.*

(288) [about a type of potatoes] *Try something like 'Arran Victory', dating from 1918, a purple-skinned variety with floury flesh, which mashes like a dream.*

(289)   *Clover stays green even in the driest part of summer. Clover rarely has to be mowed, but when it does, it mows well.*

(290)   *Why do most reviewers laud the iPhone 5's aluminium construction so much, when it chips and nicks so easily?*

(291)   *If you don't make sure the inside of the tyre no longer has any glass shards in it, your inner tube will perforate quickly, although not necessarily immediately.*

(292)   *EnviranizedTM BioFuel is the answer. It looks like coal, weighs like coal, pulverizes like coal, burns like coal, BUT WITHOUT THE POLLUTION!*

(293)   *Four million acres in the southern United States. The species grows tall, straight with very slight taper, and prunes well.*

(294)   *Try the 'squeeze test'; if the bread squashes easily and bulges back into the original shape, drop it; it is probably not poisonous, merely inedible.*

(295)   [about caviar] *The balls squish easily between my teeth. I love soft, squishy food.* (enTenTen13 corpus, Concordance section, Sketch Engine)

With regards to Levin's class of *verbs of combining and attaching*, four groups of verb classes have been selected and compiled in this dissertation, namely, *mix*, *amalgamate*, *shake*, and *tape* verbs. Firstly, as shown in Figure 15 below, the set of *mix* verbs selected here ('blend', 'connect', 'fuse', 'join', 'link', 'merge', 'mix', and 'add') is examined:

Título del gráfico

	Blend (115)	Connect (122)	Fuse (25)	Join (14)	Link (4)	Merge (17)	Mix (241)	Add (9)
beautifully	0	0	0	0	0	8	0	4
smoothly	5	0	0	0	0	0	0	0
effortlessly	0	0	1	0	0	0	0	0
like- phrase	0	0	3	0	0	0	0	0
well	22	3	9	8	2	9	148	5
easily	88	119	12	6	2	0	93	0

easily   well   like- phrase   effortlessly   smoothly   beautifully
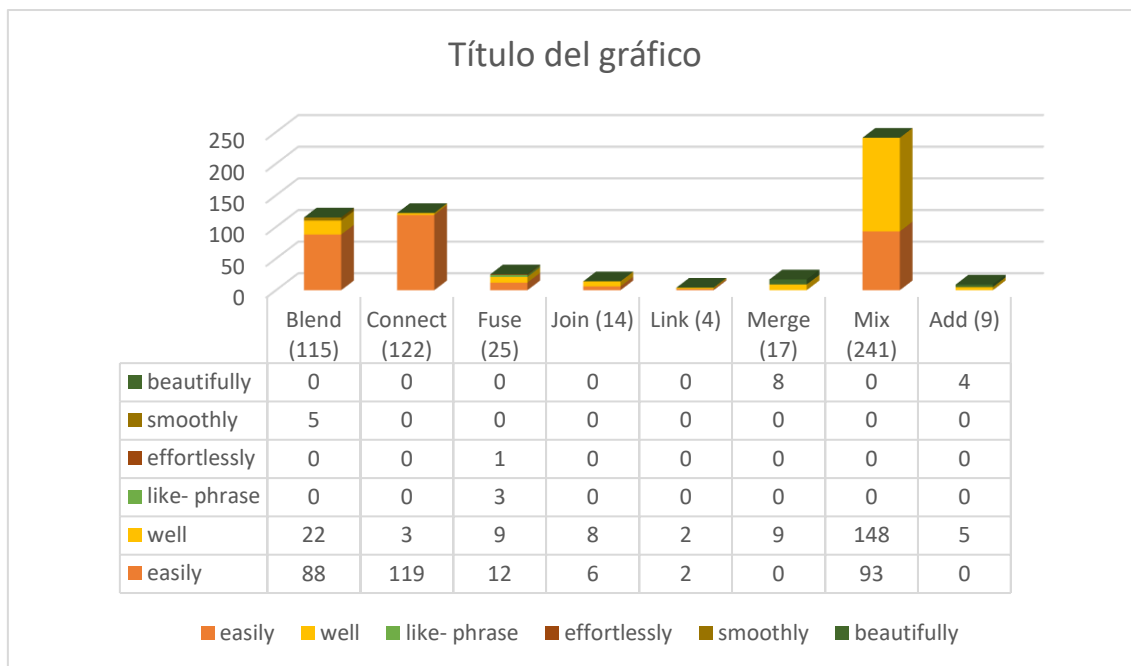
Figure 15. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 159) mix verbs

The sample of middles incorporating these *mix* verbs is 547 instances. As shown in Figure 15 above, the most productive structures, as corpus data reveal, are those in which the predicate 'mix' collocates with the adverb 'well'. Other frequent patterns include the combinations of the predicates 'blend' and 'connect' in combination with the adjunct 'easily'. Consider the following instances, representing productive middle patterns when incorporating Levin's (1993) class of *mix* verbs:

(296)   *I find it gives a really natural look and is so easy to apply. <u>This blusher also blends easily</u> and doesn't look patchy.*

(297)   *[about <u>a laptop</u>] If your work requires you to be connected with the Internet all the time, you would want to pot for <u>a model that connects easily</u> without any hassles.*

(298)   *Green SuperFood is blended to perfection in <u>a delicious tasting powder</u> that <u>mixes well</u> with juice, water or your favourite beverage.*

(299)   *Remove the rivet from the shoulder area of the upper arm, and with a small soldering iron, fill in the area where the hook had been. <u>The plastic</u> melts and <u>fuses easily</u>.*

(300)   *<u>Concrete countertops</u> are a warm, natural-looking material that <u>join well</u> with the popularity of more natural materials like wood, stone, and brick.*

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(301) _The actual arm straps link easily_ with a simply precious metal.

(302) _Vanilla also merges well_ with several other flavours and you can enjoy unique flavours such as caramel vanilla, butterscotch vanilla, cinnamon…

(303) _I recommend a shot of wheatgrass to any of the below smoothies or just take a shot on the side. Wheatgrass adds beautifully_ to the variety of green smoothies and the health benefits are reason enough alone to add this drink to your daily health. (enTenTen13 corpus, Concordance section, Sketch Engine)

With regards to the set of _amalgamate_ verbs, as shown in Figure 16 below, the predicates that have been analysed here are the following: 'amalgamate', 'associate', 'coalesce', 'incorporate', 'integrate', 'interchange', 'interconnect', 'interlace', 'interlink', 'interlock', 'intermingle', 'interrelate', 'intersperse', 'mate', 'pair', and 'marry'. The sample of middle instances incorporating these _amalgamate_ verbs is 552 examples, distributed as shown in Figure 16 below:

	Amalgamate (18)	Associate (10)	Coalesce (4)	Incorporate (53)	Integrate (159)	Interchange (6)	Interconnect (31)	Interlace (7)	Interlink (8)	Interlock (28)	Intermingle (19)	Interrelate (5)	Intersperse (1)	Mate (32)	Pair (167)	Marry (4)
beautifully	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0
perfectly	1	0	0	4	0	0	0	0	0	0	0	0	0	11	0	0
smoothly	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
well	17	10	4	38	48	0	0	6	1	0	18	0	0	19	124	4
easily	0	0	0	6	111	6	31	1	7	28	1	5	1	2	43	0

Figure 16. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 160) amalgamate verbs

As can be observed in Figure 16 above, the most frequent middle structures found across the corpus examined here are those in which the predicate 'pair' is combined with the adjunct 'well', and also those in which the predicate 'integrate' collocates with the adverb 'easily'. Consider the following instances, which represent some of the most productive middle patterns in combination with Levin's class of *amalgamate* verbs:

(304) *Moreover, <u>aluminium</u> has the capacity to <u>amalgamate well</u> with other metals, thereby providing flexibility and durability.*

(305) *Well, everyone in the Oneshift.com office collectively agree <u>words like 'handsome' and 'machismo' associate well</u> with the 6.*

(306) *Here, <u>Garrotxa coalesces well</u> with two other signature Spanish ingredients, sun-dried tomatoes and Serrano ham, to create an ethereal cheese gratin.*

(307) *<u>The LEGO 7783 set incorporates well</u> with the other LEGO Batman sets and can be conveniently purchased through major online retailers.*

(308) *<u>Service dispatch software integrates easily</u> with other software applications.*

(309) *Day2Night creates high-heel shoes that convert to a lower heel in seconds. <u>The stiletto-style heel interchanges easily</u> with five different heels, ranging in height from 3.5 inches down to a comfortable 1.5 inches.*

(310) *This is accomplished with <u>user friendly, computer-controlled test instruments that easily interconnect</u> with the vehicle to monitor various functions and parameters.*

(311) *The drawer is designed to blend with the wood, so no sudden jolts to the eye when regarding the lines of the desk. Smooth as silk, with <u>a rich colour that interlaces well</u> with any design concept, the Parson's desk is utility personified.*

(312) *<u>PDF files easily interlink</u> with your brief and provide a uniform set of regulations for creating projects.*

(313) *<u>The Partner/Plus</u> is a single message communication device that <u>easily interlocks</u> with other Partner Pluss to create multi-message communicators.*

(314) [about <u>a cocktail</u>] *This is <u>a California Rhone Style blend</u>. The ripe generous nature of Syrah and the concentrated raspberry and cherry notes*

it offers __intermingle well__ with the rustic fleshy qualities of Mourvedre's leather and earth components.

(315) *SmartGlass of the Xbox. The SmartGlass can easily turn your tablet or smartphone into __a second screen __that __interrelates__ with the Xbox One __easily__.*

(316) [about a cigarette] *It burns clean and dry to a very white __ash__ that __intersperses easily__ with the blackish flecks of any unburnt tobacco.*

(317) *__The Scud Road bike__ we presented at NAHBS is a slick looking bike. __Its matte black finish mates perfectly__ with the finish of the ENVE carbon fork, rims, handlebar, stem, and seatpost.*

(318) *__This Sauvignon Blanc__ is produced in the Loire region of France. This wine __pairs well__ with fish, seafood, white meats, and goat's cheese.*

(319) *__The Oreo crust__ has a sandy texture, it __marries well__ to the luscious chocolate filling.* (enTenTen13 corpus, Concordance section, Sketch Engine)

In relation to Levin's set of *shake* verbs, as shown in Figure 17 below, these are the three predicates that have been considered here: 'group', 'shuffle', and 'stir'.

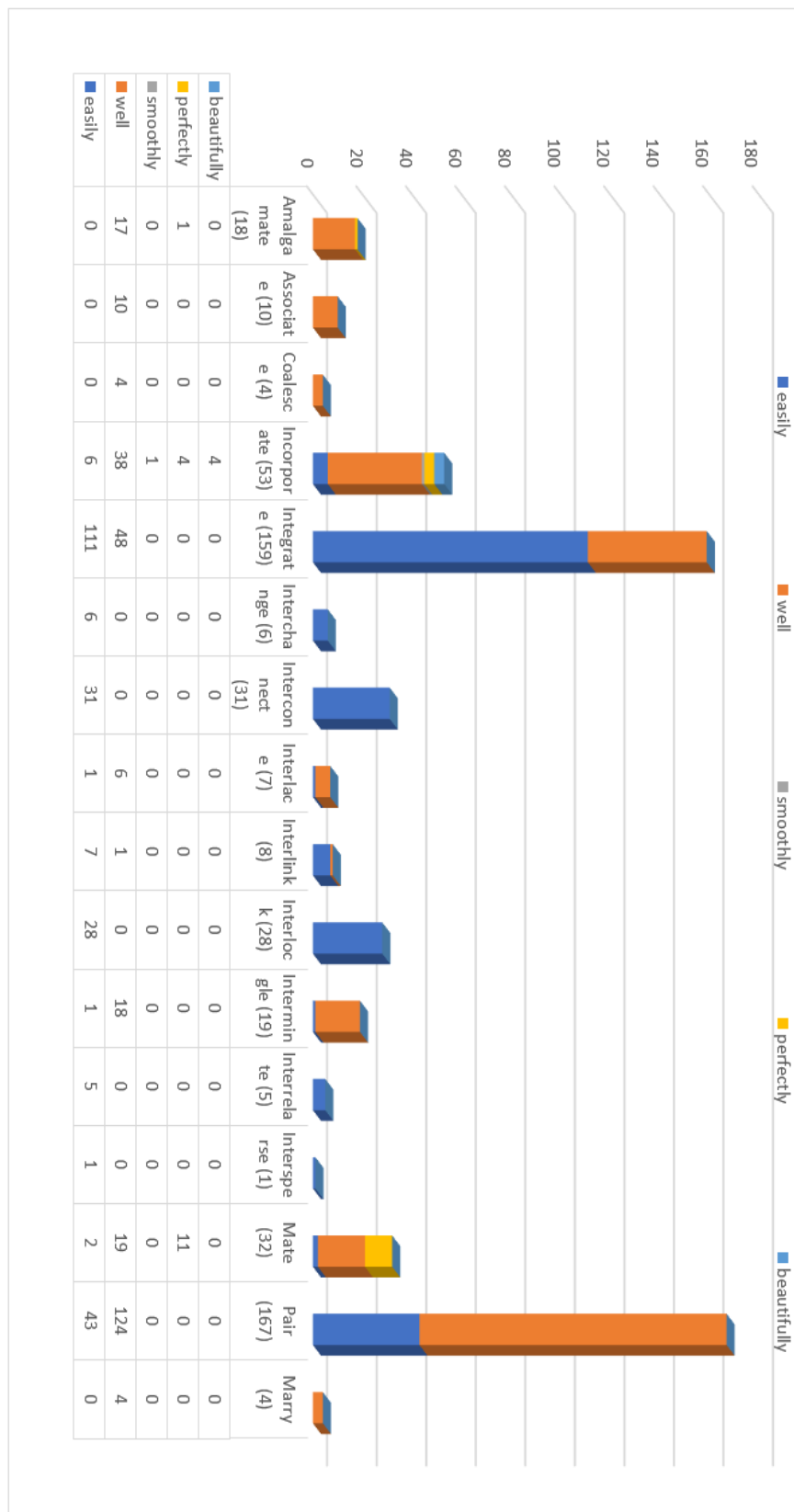|	Group (4)	Shuffle (7)	Stir (2)
nicely	0	3	0
well	4	4	0
easily	0	0	2
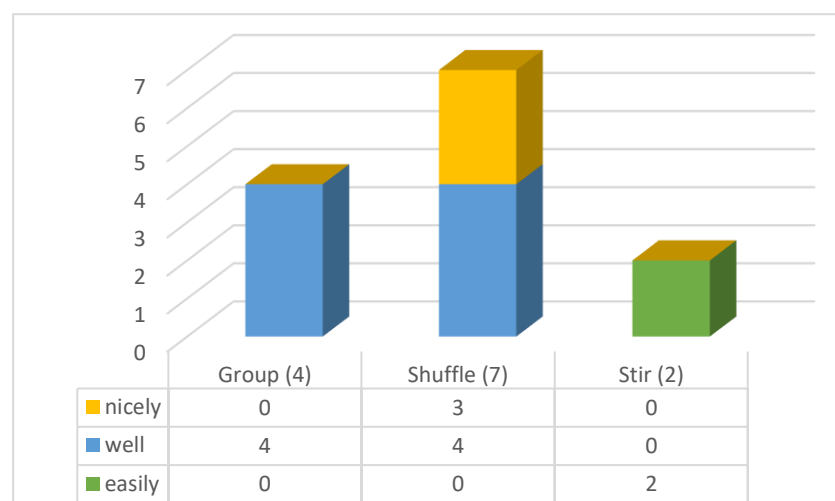
Figure 17. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 161) shake verbs

The sample of middles incorporating these *shake* verbs is 13 instances. As can be observed in Figure 17 above, the most frequent middle structures found across the corpus examined here are those in which the predicate 'shuffle' is combined with the adjuncts

'well' and 'nicely', and also those in which the predicate 'group' collocates with the adverb 'well'. Consider the following instances, which represent some of the most productive middle patterns in combination with Levin's class of *shake* verbs:

(320) *This Purple Peppers painting was the most collected of the veggie series. It's a mouth-watering delicious painting and groups well with other veggie paintings to make a table cheerful.*

(321) *The cards are made of good, thick card stock, and well laminated. The cards shuffle nicely, once they are broken in a little bit.*

(322) *When the chocolate has a nice consistency that stirs easily, but it not too runny, remove the top pan to another burner and let cool for a few minutes.* (enTenTen13 corpus, Concordance section, Sketch Engine)

The last set of verbs analysed here belonging to the class of *verbs of combining and attaching* is the so-called group of *tape* verbs. As shown in Figure 18 below, the following predicates have been considered and examined to this respect: 'anchor', 'bolt', 'buckle', 'button', 'clamp', 'clasp', 'glue', 'hitch', 'hook', 'knot', 'lace', 'latch', 'screw', 'seal', 'solder', 'stitch', 'strap', 'tack', 'tether', 'tie', 'wire', and 'zip'.

	Anchor (8)	Bolt (19)	Buckle (16)	Button (68)	Clamp (44)	Clasp (13)	Glue (52)	Hitch (15)	Hook (36)	Knot (31)	Lace (42)	Latch (41)	Screw (48)	Seal (113)	Solder (4)	Stitch (27)	Strap (30)	Tack (10)	Tether (5)	Tie (22)	Wire (5)	Zip (51)
easily	0	19	13	68	43	13	1	15	36	17	0	41	41	10	1	0	29	5	0	15	5	3
well	7	0	3	0	1	0	51	0	0	12	40	0	7	103	3	0	0	5	0	4	0	0
effortlessly	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
perfectly	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	1	0	0
superbly	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
quickly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0
like a dream	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
beautifully	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0
smoothly	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0
nicely	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48

Legend: easily, well, effortlessly, perfectly, superbly, quickly, like a dream, beautifully, smoothly, nicely
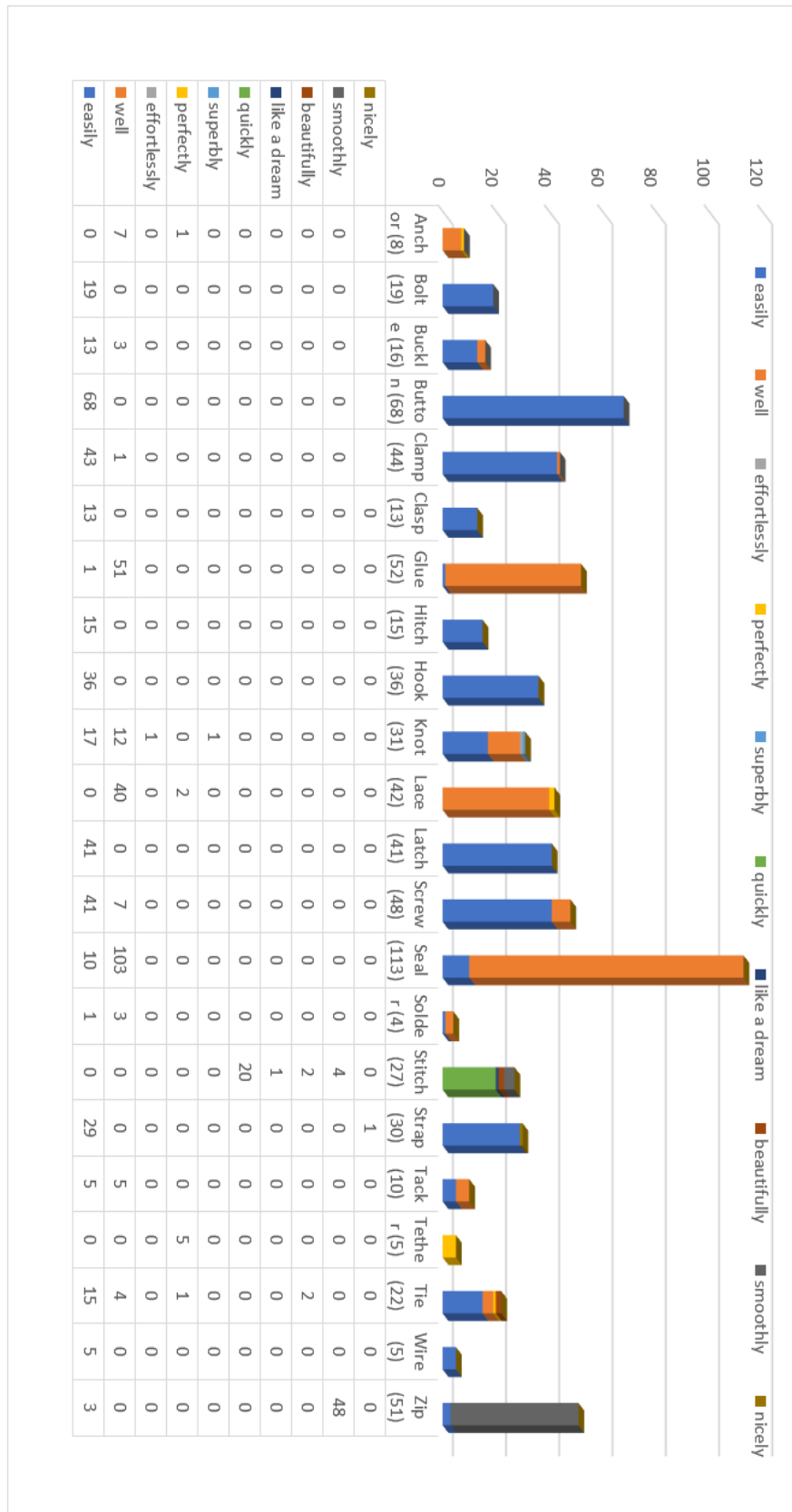
Figure 18. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 162) tape verbs

The sample of middles incorporating these *tape* verbs is 700 instances. As can be observed in Figure 18 above, the most frequent middle structures found across the corpus examined are those in which the predicates 'seal' and 'glue' are combined with the adjunct 'well', and also those in which the predicates 'button' and 'zip' collocate with the adverbs 'easily' and 'smoothly', respectively. Consider the following instances, which represent some of the most productive middle patterns in combination with Levin's class of *tape* verbs:

(323) *The latex surface fixes well on wooden surface, while <u>the polypropylene anchors well</u> on carpeted floor.*

(324) *The three pedals reside in <u>a sort of open box or module that bolts easily</u> underneath either of those flat horizontal surfaces.*

(325) *<u>The belt</u> fits tightly, but <u>buckles well</u>.*

(326) [about <u>a jacket</u>] *If it feels a little tight in the shoulders, go up a size, you can always have it tailored at the waist. Make sure it <u>buttons easily</u>.*

(327) *<u>The lock clamps easily</u> to the door and also features a special retractable guard to help prevent itchy fingers.*

(328) *If you are a long runner, GPS watch is inevitable. <u>The Forerunner</u> is absolutely sleek and <u>clasps easily</u> onto your wrist without causing any discomfort to it.*

(329) [about <u>a type of wood</u>] *<u>It glues well</u> and holds screws tightly too.*

(330) *<u>The Travoy hitches well</u> to the seatposts of most bikes and rides at a 45-degrees angle, redistributing the load's weight for easier riding.*

(331) *Cami Secret reviews say <u>the straps</u> of regular camisoles fall down, look bulky, and are either too long or too short. Cami Secret reviews say <u>it hooks easily</u> to any bra and looks classy and professional.*

(332) *Wide selection of Essential add-ons for top level hair brush. I've extended <u>hair</u> – it's almost to my butt and straight. <u>It knots effortlessly</u> so I have to clean my hair before I correct it, otherwise, I cannot manage to contain it untangled.*

(333) [about <u>a type of beer</u>] *<u>La Rossa</u> pours a nice head that <u>laces well</u> and lasts a decent amount of time.*

(334) *Make sure that the weather stripping fits snugly all around and that <u>the door</u> shuts and <u>latches easily</u> before you drive the nails in.*

(335) *These filters are one of the easiest counter top <u>water filters</u> to install. No tools needed. <u>It screws easily</u> onto existing faucets in just seconds.*

(336) *Today I'm using <u>a plastic bag</u> with a slide top as a cricket habitat. <u>The top slide seals easily </u>and allows just enough air into the bag for a short period of time.*

(337) *And <u>copper</u> is virtually free, pretty, and <u>solders easily</u>.*

(338) *<u>This star</u> is truly beautiful and can be stitched as a 3D ornament, as an applique, or as a simple embroidery design. And <u>it stitches up quickly</u>.*

(339) *<u>Coil zipper</u>. Comes with heavy-duty plastic hardware. Includes universal attachment system. <u>Straps easily</u> to cars with or without rack systems.*

(340) *<u>The boat still tacks easily</u>, as the amount the staysail sheet has to be let out and pulled in is short.*

(341) *<u>Bluetooth Tethering</u>. This phone does not tether with Mac OS 10.4 Tiger. <u>It does tether perfectly</u> with 10.5 Leopard.*

(342) [about a <u>scarf</u>] *The perfect pair! I got this in pink and I love it! It's soft, great length, picture is true to colour, <u>ties easily</u> because of the weight, exactly what I had hoped for.*

(343) *It's <u>a hardware based 2-step launch control</u>. <u>It wires easily</u> into the clutch and accelerator pedal.*

(344) *Don't just easily go straight ahead to the counter and give your dollar. Before you do that, examine the accessory first.* (…) *If the bag has a zipper, examine it as well. To make sure that it is working, try to close* <u>the bag</u> *and then open it again. Repeat it for a couple times to make sure that they use a good quality of zipper on bag and <u>it zips smoothly</u>.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Finally, Levin's (1993) class of *verbs of change of state* is examined here as producing prototypical ergative-like middles. Within this group, four sets of predicates are differentiated: *break* verbs, *bend* verbs, *cooking* verbs, and *other alternating verbs of change of state*. First, the set of *break* verbs will be discussed, as shown in Table 5 below:

Inanimate entity + *break* verb + Facility-oriented adjunct (number of instances)			
Break (118)	*Chip (14)*	*Crack (19)*	*Crush (2)*
Fracture (2)	*Rip (5)*	*Shatter (5)*	*Snap (14)*
Splinter (2)	*Split (15)*	*Tear (32)*	
TOTAL 228			

Table 5. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 241) break verbs

The prototypical ergative-like middles examined here incorporate Inanimate entities as Subject referent in combination with a *break* verb and a facility-oriented adjunct. The sample of middles incorporating these *break* verbs is 228 instances. As can be observed in Table 5 above, the most productive structures are those including the predicate 'break'. Consider the following instances, representing some of the most productive middle structures including Levin's class of *break* verbs:

(345) *I'm really concerned about styling <u>my hair</u> while waiting for this to develop more, since it is really thin and it <u>breaks easily</u>.*

(346) *<u>The 'cream'</u> creates a great looking finish at first, but because it is so weak, it <u>chips easily</u>. This 'cream' has too high a water content, so you tend to get micro-cracking in the surface.*

(347) *Painting <u>this timber</u> is not recommended as it <u>cracks easily</u> due to the oil moisture levels in it.*

(348) *There are more crumbs than I expected, like uncooked <u>pastry</u> treading that precarious balance between moisture and crumbs. <u>It crushes easily</u> between my teeth.*

(349) *If a moon-shape fracture shows up, it is probably <u>jasper or agate</u>. If it <u>fractures easily</u> that's definitely a clue it isn't true jade.*

(350) *You can use <u>sandpaper</u>, but it <u>rips easily</u> and your fingers will get tired when trying to sand large surfaces.*

(351) *The head is usually made from a length of gas pipe or ABS pipe (not <u>PVC pipe</u> as it <u>shatters easily</u>) bolted on to the shaft.*

(352) *"You know <u>a bean</u> is good if it <u>snaps easily</u>", says Jane Baxter, chef at Riverford Organic.*

(353) *Also be careful cutting anything with <u>fiberglass</u>, since it <u>splinters easily</u> into very fine pieces that can be a pain to get out of one's fingers.*

(354) *[about <u>a type of wood</u>] Difficult to work because <u>it splits easily</u>.*

(355)   *They've tried <u>vinyl tape</u>, but it <u>tears easily</u> and does not last longer under forklift traffic.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Now, the set of *bend* verbs will be presented, as shown in Table 6 below. The prototypical ergative-like middle structures analysed here follow this colloconstructional schema: [INANIMATE SUBJECT ENTITY + 'BEND' VERB + FACILITY-ORIENTED ADJUNCT].

Inanimate entity + *bend* verb + Facility-oriented adjunct (number of instances)				
Bend (41)	*Crease (2)*	*Crinkly (1)*	*Fold (66)*	*Wrinkle (18)*
TOTAL 128				

Table 6. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 241) bend verbs

The sample of middles incorporating these *bend* verbs is 128 instances. As shown in Table 6 above, the most frequent middle structures found here are those constructed with the predicates 'fold' and 'bend' when collocated with the adjunct 'easily'. Consider the following instances, representing some of the most productive middle patterns when in combination with Levin's class of *bend* verbs:

(356)   *<u>Aluminium</u> is cheap but it <u>bends easily</u>.*

(357)   *Linen clothing can lose its charm when cleaned with calcium in the water, you should be mindful when washing with chemicals and large disadvantage with <u>linen fabric</u> is it <u>creases easily</u> and will make you look untidy.*

(358)   *As stainless steel is everlasting but expensive, the studio sourced <u>steel</u> the thickness of cooking foil. This makes it affordable, but <u>it crinkles easily</u>.*

(359)   *<u>The iPad Smart Case</u> covers your iPad – both front and back – yet still retains the thin, light design of the iPad. It <u>folds easily</u> into a stand for reading, typing, facetime, and watching video.*

(360)   [about <u>linen</u>] *It has a down side commitment since <u>it wrinkles easily</u>.* (enTenTen13 corpus, Concordance section, Sketch Engine)

With regards to Levin's class of *cooking* verbs, as shown in Figure 19 below, the predicates examined in this dissertation are these ones: 'bake', 'boil', 'broil', 'brown', 'cook', 'crisp', 'fry', 'grill', 'heat', 'microwave', 'roast', 'simmer', and 'toast'.

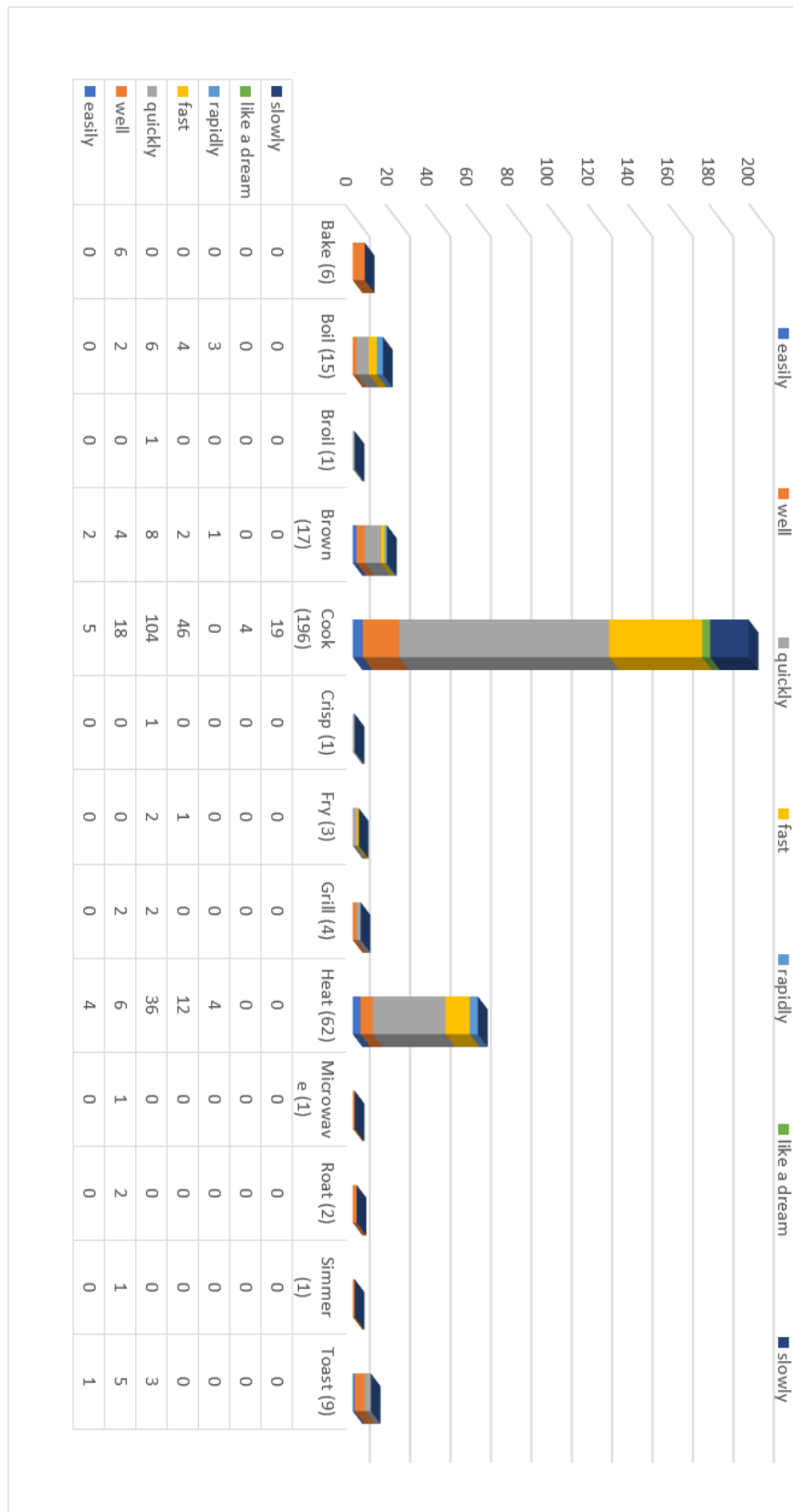|	Bake (6)	Boil (15)	Broil (1)	Brown (17)	Cook (196)	Crisp (1)	Fry (3)	Grill (4)	Heat (62)	Microwave (1)	Roast (2)	Simmer (1)	Toast (9)
slowly	0	0	0	0	19	0	0	0	0	0	0	0	0
like a dream	0	0	0	0	4	0	0	0	0	0	0	0	0
rapidly	0	3	0	1	0	0	0	0	4	0	0	0	0
fast	0	4	0	2	46	0	1	0	12	0	0	0	0
quickly	0	6	1	8	104	1	2	2	36	0	0	0	3
well	6	2	0	4	18	0	0	2	6	1	2	1	5
easily	0	0	0	2	5	0	0	0	4	0	0	0	1

Figure 19. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 243) cooking verbs

The sample of middles incorporating these *cooking* verbs is 318 instances. As shown in Figure 19 above, the most productive middle structures incorporating Levin's class of *cooking* verbs are those that combine the predicate 'cook' with the adjunct 'quickly'. In contrast to other types of verb classes examined in this dissertation, there seems to be a tendency in *cooking* verbs to be collocated with time-oriented adjuncts (basically, 'quickly, 'fast', and 'rapidly'). Consider the following instances representing some of the most frequent patterns found across middles incorporating Levin's class of *cooking* verbs:

(361) *The protein powder is so versatile! It not only tastes great, but it bakes well too.*

(362) *In a vessel, add the washed rice, pasi parruppu, one cup milk and two cups water and cook it. When it boils well, add the jaggery and mix well.*

(363) *If you like your bacon crispier oven to broil for a few minutes once it is done baking. Be careful to watch it closely as it broils quickly.*

(364) *Test the oil with a drop of the egg. If it browns quickly (but not immediately – that would be too hot), it's ready.*

(365) *Bulgur, which is similar to cracked wheat, has a pleasant, nutty flavour. It cooks quickly and is very versatile.*

(366) *Sauté until the fat of the pancetta/bacon is translucent. Don't let it get crispy (you have to heat too high if it crisps quickly).*

(367) *Bacon gets chopped so it fries quickly – everything about this recipe is quick.*

(368) *Tofu is great barbecue food because it grills well.*

(369) *One Pot Pasta is amazing for lunch or dinner as it reheats well and really satisfies. It heats well in the microwave.*

(370) [about cheese] *Put a quarter in a freezer bag, add a little reserved whey and freeze. It microwaves well to thaw.*

(371) *Freddy Bird, head chef at Bristol Lido, likes to use sprue – the younger, tenderest shoots – as much as possible, saying it roasts well, as well as being delicious raw.*

(372) *Add now the vegetables, which, to a certain extent, will stop the boiling of the stock. Wait, therefore, till it simmers well up again, then draw it to the side of the fire, and keep it gently simmering till it is served.*

(373) *It is the perfect <u>bread</u> for making toast. Being very thin slices, it <u>toasts</u> <u>quickly</u>.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Finally, the last set of verbs considered here as constructing prototypical ergative-like structures is a selection of Levin's class of *other alternating verbs of change of state*. The 46 predicates within this group that are examined here are the following, as shown in Table 7 below:

Inanimate entity + *other alternating verb of change of state* + Adjunct (number of instances)				
BURN easily (55) well (53) quickly (38) fast (26) rapidly (10) TOTAL: 182	*CHANGE* easily (6) well (4) quickly (53) fast (29) rapidly (40) TOTAL: 132	*CHAR* Easily (2) TOTAL: 2	*CHILL* well (2) quickly (1) fast (1) TOTAL: 4	*CLOG* easily (4) quickly (3) rapidly (1) TOTAL: 8
CLOSE easily (8) with ease (1) well (11) smoothly (1) quickly (5) rapidly (1) TOTAL: 27	*COLLAPSE* easily (6) quickly (2) TOTAL: 8	*COMPRESS* easily (6) well (7) TOTAL: 13	*CONDENSE* well (1) TOTAL: 1	*CONTRACT* quickly (1) TOTAL: 1
CORRODE easily (1) quickly (1) fast (1) TOTAL: 3	*CRUMBLE* easily (22) well (1) quickly (2) rapidly (1) like (5) TOTAL: 31	*DECOMPOSE* easily (3) quickly (13) fast (2) rapidly (9) TOTAL: 27	*DEFROST* easily (1) well (3) quickly (1) TOTAL: 5	*DEGRADE* easily (2) well (7) quickly (16) fast (3) rapidly (13) nicely (6) TOTAL: 47
DIMINISH quickly (1) rapidly (5) TOTAL: 6	*DISSOLVE* easily (68) well (21) quickly (64) fast (5) rapidly (8) like a dream (1) TOTAL: 167	*DISTENDS* easily (1) TOTAL: 1	*DIVIDES* easily (3) well (1) fast (1) rapidly (2) TOTAL: 7	*DOUBLE* easily (4) well (4) TOTAL: 8
DRAIN	*ENLARGE*	*EXPAND*	*FADE*	*FILL*

easily (4) well (88) quickly (17) fast (3) rapidly (5) slowly (9) smoothly (1) TOTAL: 127	well (1) rapidly (2) TOTAL: 3	easily (2) well (8) quickly (4) fast (3) rapidly (20) nicely (3) TOTAL: 40	easily (2) quickly (74) fast (12) rapidly (5) nicely (5) TOTAL: 98	easily (3) quickly (18) fast (9) rapidly (3) nicely (5) TOTAL: 38
FLOOD easily (2) fast (1) TOTAL: 3	**FREEZE** easily (4) quickly (5) fast (2) badly (1) TOTAL: 12	**LIGHT** easily (15) well (2) quickly (9) fast (3) nicely (1) TOTAL: 30	**LOOP** well (3) quickly (1) smoothly (1) TOTAL: 5	**MATURE** well (1) quickly (3) fast (1) rapidly (3) slowly (4) TOTAL: 12
MELT easily (43) well (33) slowly (11) quickly (44) fast (17) rapidly (4) nicely (7) smoothly (2) TOTAL: 161	**MULTIPLY** easily (1) quickly (17) fast (6) rapidly (32) nicely (1) TOTAL: 57	**SHRINK** quickly (1) fast (1) rapidly (2) slowly (1) TOTAL: 5	**SINK** easily (2) well (3) quickly (8) fast (7) rapidly (7) slowly (28) TOTAL: 55	**SOAK** easily (1) well (1) quickly (1) TOTAL: 3
UNFOLD easily (3) quickly (4) rapidly (1) nicely (1) TOTAL: 9	**WARP** easily (1) quickly (1) TOTAL: 2	**WHITEN** well (1) TOTAL: 1	**YELLOW** quickly (1) TOTAL: 1	**ACCELERATE** easily (2) well (11) quickly (12) fast (7) rapidly (5) smoothly (7) slowly (4) TOTAL: 48
COAGULATE well (1) quickly (2) TOTAL: 3	**DETERIORATE** quickly (12) fast (2) rapidly (10) TOTAL: 24	**DISINTEGRATE** easily (1) quickly (2) fast (1) rapidly (1) TOTAL: 5	**EVAPORATE** easily (10) well (2) quickly (70) fast (6) rapidly (7) slowly (9) TOTAL: 104	**PROPAGATE** easily (4) rapidly (3) TOTAL: 7
VIBRATE easily (1)				

well (2) fast (1) rapidly (3) slowly (3) smoothly (1) TOTAL: 11				
TOTAL 1544				

Table 7. Frequency of appearance of prototypical ergative-like middles combined with Levin's (1993: 244) other alternating verbs of change of state

The sample of middles incorporating these *other alternating verbs of change of state* is 1544 instances. As observed in Table 7 above, the most productive middle patterns including Levin's class of *other alternating verbs of change of state* are those in which the predicate 'drain' collocates with the adjunct 'well'. Other frequent collocational schemas include the predicates 'burn', 'dissolve', and 'melt' in combination with the adverb 'easily', as well as the predicates 'change', 'fade', 'melt', and 'evaporate' with the adjunct 'quickly'. Consider the following instances, representing some of the most relevant middle patterns found in the corpus examined and incorporating Levin's class of *other alternating verbs of change of state*:

(374)   *Seasoned firewood had been dried out for months, even years, after being cut. Therefore, the water content is very low and it burns easily.*

(375)   *If the mole is abnormal in shape and even size or if it changes quickly and bleeds, it might be a proof of something that is wrong.*

(376)   *Pour reserved marinade into the skillet, and heat over medium heat until the mixture reduces to a glaze consistently taking care not to burn it because it chars easily with the honey.*

(377)   [about cream cheese] *It chills well and is delicious cold.*

(378)   *Lava rock is cheap, but it clogs easily.*

(379)   [about a bag] *Only wish the handles were a bit larger – can sling it over my shoulder. There are snaps on both sides so it closes well, zipper in the dle, plenty of room.*

(380)   *One drawback – I find the stroller hard to unfold. It collapses easily, but unfolding it requires holding the handle and pushing with your foot against the brake quite firmly.*

(381) *At 40 liters, it's the perfect size. While cycling, we'll put our 'puffy' items in the pack. It compresses well, doesn't round out and stays clear of helmets.*

(382) *The material is not sticky and is easy to place. It condenses well in to deeper cavity preparations and is easy to contour for an anterior facial with a plastic instrument.*

(383) *When the scrotum is suddenly exposed to the cold, it contracts quickly, trapping the testicle in its position.*

(384) *The ideal material for silencers would be pure steel because it has the least resonance, but the drawback is that it corrodes quickly.*

(385) *Most of you have probably seen coal, too. It's a dull black and it crumbles easily.*

(386) *This can be done with cardboard as it decomposes quickly and is a favourite of red worms alike.*

(387) [about zucchini] *It defrosts quickly on the counter and I stir it into soups.*

(388) Don't cook with flax seed oil, though – it degrades quickly when heated and you'll lose the nutritional value.

(389) [about a diet pill ingredient] *It has shown to be well tolerated by the body and it is also tachyphylactic, meaning the body's response to it diminishes rapidly after its administration.*

(390) *I use Kosher salt most of the time because it dissolves quickly and it's what most professional cooks use in their kitchens.*

(391) *When the large intestine is filled with large stools and gases, it distends easily and creates additional pressure in a tightly packed abdominal cavity.*

(392) [about baked dough] *It divides easily, ready to cosset butter, while threatening to crumble if the butter is too cold.*

(393) *This recipe serves a smaller crowd (about 4 to 6), but it doubles easily.*

(394) *We've got great growing soils here, Nunan said in agreement. It's very sandy, which means it drains well.*

(395) *As the child grows, the swelling enlarges. Sometimes it enlarges rapidly and operation is necessary to check its growth; otherwise, it may involve a large portion of the face and prove incurable.*

(396) *Moreover, <u>the ice</u> is constantly under thermal strain. As the temperature falls, it <u>expands rapidly</u>, creating pressure ridges.*

(397) *I find <u>the scent</u> a little overpowering at first, but it <u>fades quickly</u>.*

(398) *I plumbed <u>the upstairs bath</u> with PEX and removed the single remaining original DHW line that we'd left in place. This means that our toilet upstairs now is fed with cold water, not hot. YAY! And, it <u>fills quickly</u>.*

(399) *[about <u>a saw</u>] The only problem I've had is that <u>it floods easily</u> if you aren't careful with the purge bulb. No doubt you could cut a whole forest down with that saw if you had a full tank of gas and a dose of Hemispheres on the iPod.*

(400) *<u>The patented, non-toxic gel</u> is comprised of a mixture of recycled plant cellulose and salt water. <u>It freezes quickly</u> but remains pliable.*

(401) *[about <u>barbecue charcoal</u>] We have tested it on ordinary wood stoves and <u>it lights easily</u> and burns cleanly.*

(402) *<u>The Av 5</u> has sufficient dwell time, looping is its forte. It <u>loops better</u> and more controllable than its Av Carbon brother due to its lesser speed and more control.*

(403) *One of the great wines of the world, <u>Vintage Port</u>. It <u>matures slowly</u>, has large amounts of sediment and a very high production cost.*

(404) *[about <u>frozen yoghurt</u>] Serve immediately! It <u>melts quickly</u>.*

(405) *Because so many people are engaged with <u>this product</u> at once, the product evolves quickly. Social media is also viral – <u>it multiplies quickly</u> – like a virus.*

(406) *The biggest problem with relying on <u>this revenue source</u>, critics note, is that when times are bad, it <u>shrinks rapidly</u>, sending the state budget into violent fiscal contractions.*

(407) *[about <u>a type of bait</u>] It <u>sinks slowly</u> and is easy to control.*

(408) *Most high-quality leather shoes also have a <u>leather sole</u> which is unbelievable unuseful when it is wet outside. It <u>soaks quickly</u> and the leather will be gone soon.*

(409) *[about <u>a stroller</u>] <u>It unfolds quickly</u> hence there's no need of unfolding it by hand.*

(410) *<u>Red clay</u> is rare for me; it is gorgeous but brittle and delicate, dries so quickly and it <u>warps easily</u>.*

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(411) *Let the <u>honey</u> cool well and throw onto it, then return to the fire and stir with the rod unceasingly until it <u>whitens well</u>.*

(412) *<u>Paper made from this pulp</u> is weak and tan in colour. It <u>yellows quickly</u> and becomes brittle with age.*

(413) *<u>The Gecko</u> is a great <u>bike</u> and gets attention wherever it goes. With the small tires, it <u>accelerates quickly</u>, and loves to go fast!*

(414) [about <u>jam</u>] *To be sure it has the right consistency, take a spoon and pour it on a plate and if <u>it coagulates quickly</u>, then you can turn off the heat.*

(415) *<u>Marble</u> is beautiful and it was easier to carve for craftsmen who did not have the tools we have now, but it <u>deteriorates quickly</u> compared to granite.*

(416) *<u>Tramadol capsule</u> is easy to consider since it <u>disintegrates quickly</u> any time ingested.*

(417) *I realized that <u>paint thinner</u> takes it off. It really smells, because <u>it evaporates fast</u>, so make sure you do it in a well-ventilated room.*

(418) *You will be able to persuade youths to start putting on tailor made t-shirts 'Camisetas Para Personalizar', which will help through <u>environmental knowledge</u> in order that it <u>propagates rapidly</u> near within the society.*

(419) [about <u>electromagnetic energy</u>] *When the energy is fine and light, it not only vibrates higher and faster, but is also very quicky and easy to change. When the vibration is dense, then <u>it vibrates slowly</u> and is sluggish.* (enTenTen13 corpus, Concordance section, Sketch Engine)

With regards to the metonymically-motivated extensions of the ergative-like prototype, the middle structures discussed in this dissertation belong to the classes of Agent-Instrument and Experiencer-Subject middles. The sample of instances compiled in the case of Agent-Instrument structures is 286; and the sample of Experiencer-Subject middles found across the corpus examined is 1789 instances, as shown respectively in tables 8 and 9 below.

	Easily	With ease	Well	Effortlessly	Smoothly	Quickly	Fast	Like a dream	Brilliantly	Properly	Beautifully	Great	TOTAL
Cut	29	11	58	--	26	25	17	27*	--	--	--	--	193
Saw	5	--	5	--	--	2	--	1**	--	--	--	--	13
Drill	1	--	1	--	--	--	--	--	--	--	--	--	2
File	1	--	--	--	--	--	--	--	--	--	--	--	1
Slash	--	--	--	1	--	--	--	--	--	--	--	--	1
Carve	--	--	2	--	--	1	1	--	--	--	--	--	4
Grind	1	--	5	--	2	--	--	3	--	--	--	--	11
Mash	--	--	1	--	--	--	--	--	--	--	--	--	1
Mow	1	--	9	--	--	--	--	3	--	--	--	5	18
Nick	1	--	--	--	--	--	--	--	--	--	--	--	1
Punch	2	--	--	--	--	--	--	--	--	--	--	--	2
Shred	--	--	1	--	--	--	--	--	--	--	--	--	1
Slice	5	--	5	--	--	--	--	2	--	--	--	--	12
Staple	2	--	1	--	--	4	1	--	--	1	--	--	9
Stitch	3	--	2	1	2	2	2	--	1	--	4	--	17

Table 8. Frequency of appearance of Agent-Instrument middles

* Instances with the predicate 'cut' in combination with a *like*-phrase adjunct are distributed as follows: 9 instances collocate with the adverbial phrase 'like a dream', whereas 18 examples incorporate the adjunct 'like butter'.

** Instances with the predicate 'saw' do not collocate with the adjunct 'like a dream', but with the *like*-phrase 'like mad'.

As revealed in Table 8 above, Agent-Instrument middles are quite productive when they incorporate Subject referents fulfilling the role of Instrument in combination with Levin's classes of *verbs of cutting* and *verbs of combining and attaching*. Most of the predicates included in Table 8 above belong to Levin's class of *verbs of cutting*, except 'staple' and 'stitch', which are considered *tape* verbs within the category of *verbs of combining and attaching*. According to the data shown in Table 8 above, the most productive combinations occur with the predicate 'cut' when collocated with the adjuncts 'well', 'easily' and 'smoothly'. Consider the following instances, showing some of the most representative patterns forming Agent-Instrument middles:

(420) *This is the Razor ® Carbide bur from Axis Dental, my favourite bur for cutting through PFM crowns. The Razor even cuts well on those metal substructures we see on patients who went to Mexico to have their dentistry done.*

(421) *[about a brand of electric saws] Sawing Molybdenum saws easily with power bend saws and hacksaws.*

(422) *The TruFitTM bit drills easily and seems to track very true.*

(423) *The rabbet on the keel was cut using a small shaped scraper as shown in the following sketch. I used a lot of these little scrapers for various*

tasks. *Mine were made from 1/16" stainless steel only because I had that and it files easily.*

(424) *This can-opener opens cans of measurements, it slashes effortlessly from the side, as well as the top can be lifted immediately after it has been exposed.*

(425) *The modern sidecut makes the Nocta a powerful weapon for powder skiers, while its soft and dynamic flex allows for great handling in any snow conditions. With its 18-meter sidecut radius, the Nocta also carves well on hard snow.*

(426) *The Vertimill is a gravity-induced stirred mills and can grind well to about 20 microns, mainly for regrinding applications.*

(427) *Just like a masticating juicer, the twin gear juicer mashes well and crushes the actual vegetables and fruit to produce all of the nutrition as well as digestive enzymes feasible.*

(428) *The cutting blades mow well as long as the 48-volt battery is fully charged.*

(429) *Knife blades are *rarely* sharp enough to make a clean painless cut (...), x-acto blades are the same way, and nick easily.*

(430) *Bigger than traditional cookie cutters the Lunch Punch is specifically designed for bread, in fact it punches easily through two slices of bread AND spread without crushing and flattening them.*

(431) *Brugge Rodenbach will also add deep zest to sandwiches, give burgers new life, shred well for au gratin recipes and is delicious baked in filo dough appetizers.*

(432) *The opener features a sharp stainless steel cutting wheel that slices easily through cans.*

(433) *The Salco R106 Electronic Gangster ® stapler package is the most popular bindery stapler for fast, efficient stapling of folded 11 X 17 sheets into booklet form. With two stapler units joined by a fiber optic cable, it staples quickly and securely for a professional result. Staples up to 50 sheets of paper - a 100-page booklet.*

(434) [about a sewing machine] *I have the Pfaff sensation and I love it. It stitches beautifully with any thread including metallics.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Finally, the other metonymically-motivated extension from the ergative-like prototype is the Experiencer-Subject structure. As shown in Table 9 below, middles of this marginal type are constructed with +Animate entities in combination with Levin's class of *amuse* verbs and followed by a facility-oriented adjunct:

Animate entity + *amuse* verb + Facility-oriented adjunct (number of instances)			
Abash (1)	Alarm (1)	Amaze (2)	Amuse (8)
Anger (70)	Astonish (2)	Awe (1)	Boggle (1)
Calm (1)	Confuse (14)	Depress (1)	Disappoint (2)
Discourage (9)	Distract (1)	Embarrass (71)	Entertain (3)
Exasperate (1)	Excite (1)	Exhaust (2)	Fascinate (2)
Fluster (3)	Frighten (73)	Frustrate (17)	Impress (40)
Intimidate (9)	Obsess (2)	Offend (26)	Overwhelm (2)
Panic (1)	Provoke (1)	Relax (13)	Scandalize (1)
Scare (319)	Shock (18)	Spook (119)	Startle (157)
Stimulate (1)	Stir (1)	Stun (4)	Surprise (3)
Terrify (3)	Threaten (2)	Tire (768)	Unsettle (1)
Weary (2)	Worry (8)	Wound (1)	
TOTAL 1789			

Table 9. Frequency of appearance of Experiencer-Subject middles with Levin's (1993: 189) class of amuse verbs[209]

The sample of middles incorporating these *amuse* verbs is 1789 instances. As observed in Table 8 above, the most productive middle patterns incorporating *amuse* verbs are those in which the following predicates are involved: 'anger', 'embarrass', 'frighten', 'scare', 'spook', 'startle', and 'tire'. Consider the following instances, showing middle patterns with *amuse* verbs:

(435) *Although I am absolutely shy and abash easily, I no added feel the aforementioned as dating personals I meet on adult dating sites accord to altered countries.*

(436) *Not being a person to alarm easily, I calmly turned to see what had darkened the doorway.*

(437) *I don't amaze easily when it comes to the deplorable practices of Big Pharma.*

(438) *Then again I am old and amuse easily.*

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[209] Adapted from Palma Gutiérrez (2021a: 107).

(439) *The study also reveals that <u>people</u> who exert daily self-control, preferred anger or violent themed movies and were more likely to become irritable and <u>anger easily</u>.*

(440) *"You astonish easily", she said.*

(441) *And I don't awe easily!*

(442) *I don't boggle easily.*

(443) *<u>Young children will not calm easily</u> if they feel Mommy or Daddy is also out of control.*

(444) *They don't want a lot of explanation because <u>they confuse easily</u>.*

(445) *Just as well <u>I don't depress easily</u>.*

(446) *But the cat does not disappoint easily.*

(447) *A lot of <u>people discourage easily</u> at the first sign of failure.*

(448) [About pre-schoolers and toddlers with signs of ADHD] *Distract easily.*

(449) *George likes to be the life of the party and <u>he does not embarrass easily</u>.*

(450) *I don't entertain easily with books.*

(451) *He just exasperates easily!*

(452) *Again, Doctor, <u>pilots do not excite easily</u> or they would not be airline pilots!*

(453) *<u>I</u> dislike shopping and <u>exhaust easily</u>.*

(454) *<u>The characters fascinate easily</u> and there is a payoff for each of them.*

(455) *But all these guys are <u>rodeo kings</u> and <u>don't fluster easily</u>.*

(456) *She has a big scar across her face and <u>she frightens easily</u> if you move fast near her head.*

(457) *<u>He</u>'s a reluctant reader, capable but <u>frustrates easily</u>.*

(458) *<u>I don't impress easily</u>, but I have to tell you, the Atomic Punks blew me away last night.*

(459) They are naturally <u>shy fish</u> and <u>intimidate easily</u>.

(460) *<u>I obsess easily</u> about things like TV shows, for example.*

(461) *There is no sense of humour – <u>the army offends easily</u>.*

(462) *<u>With ADHD some people</u> can't "sort" their emotions, so they show up quickly and <u>overwhelm easily</u>.*

(463) *Mary panics easily.*

(464) *"I am sorry, Captain; I shouldn't try to provoke you, should I?" – "<u>I don't provoke easily</u>," he said genially.*

(465) *They have a very easy-going personality and relax easily when picked up.*

(466) *He is strong and loyal and scandalizes easily, which I love.*

(467) *The seals can be sensitive and scare easily.*

(468) *I don't shock easily. Whatever you've done, I've either done it, thought about it or loved someone who did it.*

(469) *I don't know if you've ever been around sheep, but they're a strange animal. They're dumb and skittish, they spook easily.*

(470) [About a person with previous neurotic or depressive problems] *Might have difficulty sleeping and concentrating; be irritable or subject to bursts of anger and may startle easily.*

(471) *The anti-snoring patient stimulates easily because of their loss in air.*

(472) *If you have an infant that stirs easily, you'll probably want to go with a low noise vacuum.*

(473) *However, it became apparent that flying fish stun easily.*

(474) *And I don't surprise easily when it comes to kids.*

(475) *Potential customers in Asia don't terrify easily.*

(476) *I don't threaten easily. I live in The Terran Colony!*

(477) *Aunt Jennifer is also becoming weak. She tires easily at a task that she finds to be her only escape from her own life.*

(478) *And it's true that I unsettle easily.*

(479) *Toy producers are very cautious about the age they suggest for their toys and activities, as kids too old or younger will weary easily.*

(480) *Will won't tell me how much, but I think he's worried, and he doesn't worry easily.*

(481) *Believe it or not, a man wounds easily. If you love him today, Love him tomorrow.* (enTenTen13 corpus, Concordance section, Sketch Engine)

4.3.   Destiny- and Result-oriented middles:

With regards to Destiny- and Result-oriented structures in the corpus examined here, as shown in Table 10 below, these two marginal types of middles are quite productive too. The predicates involved in these structures mainly construct prototypical ergative-like middles, except the verbs 'photograph' and 'store' in the Result-oriented side, which conform prototypical action-oriented structures:

Destiny-oriented		Result-oriented
Button at (3)	*Bond to (101)*	*Photograph well (85)*
Fit in (79)	*Fasten (116)*	*Wash well (91)*
Attach to (544)	*Fuse to (16)*	*Rinse well (33)*
Wrap around (27)	*Stick to (110)*	
Fold into (89)	*Store neatly (104)*	
Append to (8)	*Fold up neatly (69)*	
Total Destiny-oriented (1266)		**Total Result-oriented (209)**
TOTAL 1475		

Table 10. Frequency of appearance of Destiny- and Result-oriented middles

Even though these patterns can be classified either as prototypical ergative-like or action-oriented, they are presented in Table 10 above, separated from the tables and figures from previous sections, because they do not follow the prototypical schemas in the process of Compositional Cospecification corresponding to their groups, as explained in Section 3.1.3.4. In addition, in spite of the fact that the predicates 'photograph', 'store', 'wash', and 'rinse' are considered non-middable in Levin's (1993) work, corpus data demonstrates that, actually, they elaborate appropriate middle patterns in English due to the prototype effects of the construction.

Concerning the Destiny-oriented middles analysed in this dissertation, as shown in Table 10 above, the colloconstructional schemas found here are based on the occurrence of Inanimate Subject referents combined with the following Verb + Adverb collocations: 'button at', 'fit in', 'attach to', 'wrap around', 'fold into', 'append to', 'bond to', 'fasten to', 'fuse to', 'stick to', 'store against', and 'fold up'. The most productive patterns, as corpus data reveal, are those that incorporate the collocations 'attach to',

'bond to', 'fasten to', 'store against', and 'stick to'. Consider the following instances in this regard:

(482)   *The dress buttons at the back of the neck.*

(483)   *I love <u>my iPod nano</u>. It's cute and perfect and holds a million hours of entertainment. It <u>fits in</u> my pocket.*

(484)   *An inexpensive but handy <u>holster made from neoprene</u> that will keep your bear spray close at hand. <u>Attaches to</u> your belt or pack strap.*

(485)   [about <u>a trench coat</u>] *It's a lot like a robe, really. It's got nice long sleeves and it flows most of the way down your body, plus, <u>it wraps around</u> you to cover your entire body.*

(486)   *<u>The lamp</u> swivels in all directions and it <u>folds up into</u> a compact package.*

(487)   *With super cozy swelling pillows covered with mocha microfiber, the seating is luxurious, and <u>brown leather searching vinyl appends to</u> the class of this large furniture.*

(488)   *Epoxy Clay – <u>Basics Epoxy clay is a 2-part clay that bonds to</u> most materials.*

(489)   *<u>The bag fastens to</u> your bike rack and works like a normal pannier.*

(490)   *When you need an implant, your dentist inserts <u>a metal post</u> beneath your gum and into the bone. It <u>fuses to</u> the bone in your jaw and acts like the root of a teeth.*

(491)   *<u>Georgian bread</u>. It's really cool the way they do it: they bake the bread in deep clay pits, like wells, or tandoori ovens. It <u>sticks to</u> the side and as it bakes, it starts to peel away.*

(492)   *When <u>the stand</u> is not needed, it <u>stores neatly</u> against the case and turns into the case' closure system.*

(493)   *<u>This table</u> is perfect for us, and we have already made good use of it. It <u>folds up neatly</u>, and can be stored under a large bed.* (enTenTen13 corpus, Concordance section, Sketch Engine)

Instances (492) and (493) above also rely on a result-oriented value since they contain the adjunct 'neatly', thus focusing on the result of 'storing the stand against the case' and 'folding up the table', respectively.

Finally, with respect to the Result-oriented structures examined here, as shown in Table 10 above, their colloconstructional schema involves Inanimate Subject referents in

combination with the predicates 'photograph', 'wash', and 'rinse', and adverbials commenting on the result of carrying out the process denoted onto the Subject entity (namely, 'well'). These colloconstructional schemas produce either action-oriented middles (as in 'photograph well' structures) or ergative-like middles (as in 'wash well' and 'rinse well' structures). Consider the following instances in this respect:

(494) *The modern artist or craftsman is concerned with fulfilling the public expectation, creating <u>an image </u>that <u>photographs well</u>.*

(495) *I did put <u>the Bumfy</u> on a wash and it washed very well and also dried quickly. I like the hygiene idea of using the Bumfy in a trolley, so it's good that it <u>washes well</u> but it may fade after a number of washes*.

(496) [about <u>an antibacterial soap</u>] <u>*It rinses well*</u> *after shower and leaves your skin smoothened*. (enTenTen13 corpus, Concordance section, Sketch Engine)

4.4. Summary of the chapter

In this chapter, corpus data is analysed and classified into action-oriented and ergative-like structures (both central and peripheral). The total sample of instances examined is 14099 structures in context, based on colloconstructional schemas combining ±Animate Subject entities with 254 different predicates collocated with a wide range of adverbials. The most remarkable results to highlight are the following:

(i) As shown in Figure 20 below, ergative-like middles are the most productive structures in the corpus examined (6801 instances, 68.24%), followed by prototypical action-oriented middles (3633 examples, 25.77%). Among the metonymically-motivated extensions, the most frequent type is that of Experiencer-Subject middles (1789 instances, 12.69%), followed by Agent-Instrument middles (286 examples, 2.03%). The least productive structures examined are Locative (48 instances, 0.34%), Means (60 instances, 0.43%), and Circumstance-of-Instrument middles (7 examples, 0.05%):
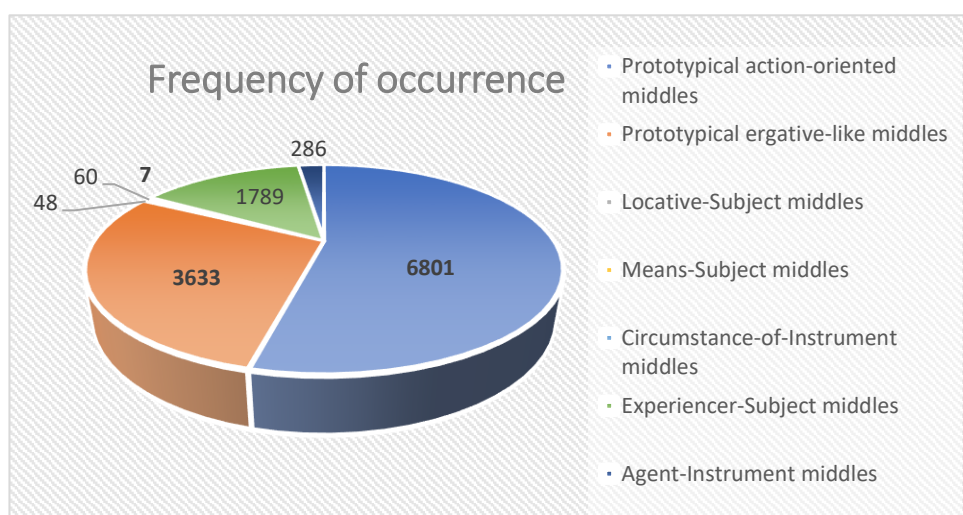
Figure 20. Frequency of appearance of the middles examined according to their classification

(ii) The Destiny- and Result-oriented middles compiled in this dissertation (1475 instances) make up 10.46% of the total sample. Destiny-oriented middles are more productive than Result-oriented structures, with 1266 instances (8.98% of the total sample) and 209 instances (1.48%), respectively.

(iii)   The predicate occurring most frequently is 'handle' when combined with the adjunct 'well' and Inanimate Subject referents, hence forming prototypical action-oriented middles.

(iv)   In terms of the nature of the adjuncts occurring in the middles examined here and the semantic typology of middles provided by scholars like Heyvaert (2001, 2003) and Davidse and Heyvaert (2007), the most prominent types of middles in this corpus are facility- and quality- oriented, chiefly constructed with the adverbs 'easily' and 'well'.

5. Conclusions

In this dissertation, the middle construction has been depicted as a prototype category, rather than as a discrete category of its own, as it is located within a cognitive network of syntactically, semantically, pragmatically, and conceptually related intransitive constructions (namely the unergative and the ergative ones). The family-resemblance analysis offered here challenges the traditionally accepted restricting features associated with the middle construction, thus demonstrating that both central and marginal structures can be accommodated within the middle prototype category. The examination in terms of the family-resemblance analysis elaborated here allows the subsumption of the following prototypical and peripheral middle structures: (i) prototypical action-oriented middles; (ii) prototypical ergative-like middles; (iii) the metonymically-motivated extensions of the action-oriented prototype (namely, Locative, Means, and Circumstance-of-Instrument middles); and (iv) metonymically-motivated extensions from the ergative-like prototype (namely, Agent-Instrument and Experiencer-Subject middles).

In Chapter 2, I have demonstrated that the middle prototype category is able to accommodate both central and marginal structures within the category as all of the segments share certain commonalities with regards to their underlying syntactic, semantic, pragmatic, and cognitive schemas. Therefore, the syntactic schema underlying the middle prototype category is [NP_1 – VP – (Adv)]. In addition, the semantic schema characterising the middle construction is found in the formula [X (by virtue of some property P) IS SUBJECTIVELY ASSESSED BY THE SPEAKER AS BEING CONDUCIVE TO ACT]. Besides, the pragmatic schema underlying the middle prototype category involves the pattern 'Patient/Enabler-profiling and Agent-defocusing'. Finally, the metonymic mapping underlying the middle structure is shown in the conceptual schema [(ACTUAL) PROCESS FOR (POTENTIAL) ACTION FOR SUBJECTIVELY ASSESSED RESULT].

In Chapter 3, the family-resemblance analysis of the middle prototype category is also elaborated by means of the similarities and differences found across the segments on the category in terms of the process of Compositional Cospecification. I have proved that prototypical action-oriented middles are featured by the pattern [$Q_T \rightarrow Q_C$], while prototypical ergative-like middles follow the schema [$Q_C \rightarrow Q_C$]. With regards to the

metonymically-motivated extensions of these prototypes, related – yet no identical – patterns are manifested. On the one hand, the extensions of action-oriented middles (namely, Locative, Means, and Circumstance-of-Instrument middles) follow the archetypal schema occurring in prototypical action-oriented middles, $[Q_T \rightarrow Q_C]$. On the other hand, in the case of the extensions of the ergative-like prototype, only Experiencer-Subject middles follow the typical pattern of ergative-like middles, $[Q_C \rightarrow Q_C]$, whereas Agent-Instrument middles take the schema found in action-oriented middles, $[Q_T \rightarrow Q_C]$.

In addition, due to the prototype effects of the middle prototype category, other marginal members within the family of constructions have been examined in terms of their process of Compositional Cospecification. This is the case of middle structures incorporating the predicate 'sell', as well as the case of Destiny- and Result-oriented middles. With regards to 'sell' middles, their peculiarity is found at the pragmatically-motivated Q_T mode, which is backgrounded due to the addition of the semantic value of the adjunct, hence foregrounding the Q_A as well as other modes (Q_C and Q_F). Then, the case of Destiny- and Result-oriented middles has also been examined here, hence, elaborating the diverse patterns in Compositional Cospecification they can denote: $[Q_C \rightarrow Q_C]$ and $[Q_F \rightarrow Q_F]$, as well as the more complex pattern $[Q_C + Q_F \rightarrow Q_C + Q_F]$.

On the other hand, Chapter 3 also offers a complex functionalist-based analysis to show how a particular middle instance can be examined by virtue of its grammatical, cognitive, and contextual intrinsic distinctions. Thus, the model presented here permits a systematic, detailed, and intricate examination of the middle construction, allowing the accommodation of both prototypical middles and their metonymically-motivated extensions.

Finally, Chapter 4 presents the corpus data examined in this dissertation, including its distribution (into action-oriented and ergative-like structures, both central and peripheral members) and frequency of appearance. As data reveal, prototypical ergative-like middles are much more productive than the rest of types. In addition, the least frequent middle patterns are those belonging to the class of metonymically-motivated extensions from the action-oriented prototype (namely, Locative, Means, and Circumstance-of-Instrument middles).

Some further research would be needed to explore in more detail the different marginal types of middles, taking into account the fuzzy boundaries existing between the

middle and other syntactically and semantically-related structures. In doing so, the range of metonymically-motivated extensions from the prototype would be refined, providing a better understanding of the family-resemblance approach to the middle construction.

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Online resources

- EnTenTen13 Corpus within Sketch Engine: https://app.sketchengine.eu/#dashboard?corpname=preloaded%2Fententen13_tt2_1
- Linguee Online Dictionary: https://www.linguee.es/
- Sketch Engine: https://www.sketchengine.eu/
- WebCorp: The Web as Corpus: https://www.webcorp.org.uk/live/