

Article

Truth-Conditional Pragmatics and Lexical Modulation: A Cognitive Semantic Investigation of Polysemy Resolution in Highly Contextualized Discourse

Zahraa Shaker Khuraibat Saleh

1. Islamic University, English Language and Literature, Lebanon

* Correspondence: Sunshin_zozo2000@yahoo.com

Abstract: This paper offers a theoretically integrated account of how polysemous lexical items are resolved in highly contextualized discourse, foregrounding the relationship between lexical modulation and truth-conditional content within a cognitive semantic framework. We argue that the interpretive indeterminacy of polysemous expressions — words whose semantic potential exceeds what any single context deploys — is not a marginal complication but a constitutive feature of natural language meaning, one that exposes a fundamental tension between the stability of encoded lexical meaning and the contextual specificity required for propositional truth evaluation. Drawing on cognitive semantic models of lexical representation (Geeraerts, 1997, 2010; Langacker, 1987, 2008; Taylor, 2003), relevance-theoretic accounts of pragmatic enrichment (Sperber & Wilson, 1995; Carston, 2002), and truth-conditional pragmatics (Recanati, 2004, 2010), the paper develops the concept of Contextually Activated Semantic Potential (CASP) as a theoretical construct that captures the dynamic interaction between the encyclopaedic knowledge structures associated with a lexical item, the discourse-contextual pressures that activate selective subsets of those structures, and the truth-conditional constraints that govern when a pragmatically modulated sense counts as propositionally determinate. We illustrate the operation of CASP through detailed analysis of polysemous nouns, verbs, and adjectives in discourse contexts of varying density and specificity, demonstrating that polysemy resolution is not a discrete, binary event but a gradient process of conceptual narrowing and enrichment whose outcome is a contextually situated propositional content that is simultaneously cognitively real and truth-evaluable. The paper concludes by arguing that a fully adequate theory of polysemy resolution must be both cognitive — grounded in how lexical knowledge is structured and accessed — and truth-conditional — sensitive to the requirements that natural language propositions satisfy in order to function as bearers of truth value.

Citation: Saleh, Z. S. K. Truth-Conditional Pragmatics and Lexical Modulation: A Cognitive Semantic Investigation of Polysemy Resolution in Highly Contextualized Discourse. *International Journal of Language Learning and Applied Linguistics* 2026, 5(3), 69-82

Received: 10th Feb 2026

Revised: 21th Mar 2026

Accepted: 08th Apr 2026

Published: 20th May 2026



Copyright: © 2026 by the authors. Submitted for open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>)

Keywords: truth-conditional pragmatics; lexical modulation; polysemy resolution; cognitive semantic; pragmatic enrichment; highly contextualized discourse

1. Introduction

The common state of the lexicon is polysemy. The vast majority of words in any natural language are linked to more than one meaning, and these meanings do not happen by chance or due to linguistic history, but are indicators of systematic patterns in the way human cognition is mapped onto conceptual content. A language user who comes across the word run does not develop an interpretive anxiety the meaning is self-resolving, situation-specific, near effortlessly. But the mechanism behind this solution is conceptually astonishing: somehow, out of an encoded semantic form, which is schematic to the extent to which locomotion, financial operation, organizational management, and

narrative structure can be encompassed, a certain contextually determined, truth-evaluable reading is retrieved. The question of how this occurs and on what cognitive processes it occurs as well as what the resulting meaning is like in terms of truth-conditional semantics are the issues that have inspired this paper.

The title previews three theoretical areas, the intersection of which constitutes the object of inquiry of the paper. Truth-conditional pragmatics is interested in how and to what extent inferential enrichment is constituted by pragmatic, contextual processes in relation to the propositional content of utterances, that is, the question of how and why and to what degree the very content that is assessed as true is pragmatically, contextually constituted [1], [2]. Lexical modulation is a term used to describe the set of processes through which the encoded content of a lexical object is contextually narrowed, broadened, extended, or metaphorically transferred, during the production or understanding of an utterance [3], [4]. Cognitive semantics offers the general theoretical framework: a conception of meaning as based on embodied conceptual structure, and organized around prototype-based categories and being necessarily encyclopaedic in its relation to world knowledge [5], [6], [7].

The relationship between the three areas lies in the fact that they share a common theoretical issue, namely, the disparity between what a word represents in the linguistic system and what it represents in a particular discourse situation. The structure of lexical meaning as a system has been theorized in cognitive semantics, the propositional demands of contextual interpretation have been theorized in truth-conditional pragmatics, the mechanism by which the two are interconnected has not been treated in a consistent theoretical manner within a cognitive semantics framework. This is the theoretical gap that this paper fills.

The paper follows the following structure. Section 2 contextualizes the research in the cognitive semantic tradition and examines the pertinent literature on polysemy, lexical meaning, and conceptual structure. Part 3 discusses the truth-conditional aspect of the issue, which is concerned with how the pragmatic enrichment influences the propositional content in a weakly contextualized discourse. Section 4 presents the main theoretical construct of the paper - Contextually Activated Semantic Potential (CASP) - and creates a theoretical architecture of it. Section 5 applies the CASP model to the analysis of polysemy resolution in nominal, verbal and adjectival areas in detail. Section 6 deals with the particular role of discourse density and contextual specificity in resolution outcomes. Section 7 summarizes by placing the findings in the context of wider questions of cognitive linguistics and the philosophy of language.

Cognitive Semantics and The Structure of Lexical Polysemy

Lexical Meaning as Encyclopaedic Knowledge

The cognitive semantic tradition is fundamentally different in its approach to the classical componential conceptualization of lexical meaning, according to which the meaning of a word is completely defined by a finite set of semantic features or primitives, which are constituents of the language system itself and are not identical to the world knowledge of speakers. In the case of cognitive semantics, the difference between semantic and encyclopaedic knowledge is theoretically untenable. The semantic value of a linguistic unit is not, as Langacker [8] puts it, a self-contained bundle of features, but a window into a very extensive network of conceptual structure - a profiled region of an encyclopaedic cognitive domain or matrix of domains which extends, in principle, indefinitely.

According to this opinion, the meaning of a word such as bird is not made up of a few necessary and sufficient conditions (has feathers, lays eggs, can fly) but refers to a whole cognitive model of birds their perceptual properties, the patterns of their behavior, how they fit into an ecology, their cultural connotations, and their place in a taxonomy of living things. The word activates a contextually determined sub-system of this encyclopaedic system, the features and relationships most pertinent to, and most needed by, the discourse situation in hand [6].

The lexical meaning is encyclopaedic and this has direct implications on the theory of polysemy. When lexical meaning is an organized activation of a broad domain of

cognition and not a localized feature set, then polysemy is not a weirdness of some problematic words but an upshot of the manner of the organization of all lexical meaning. The various contexts of discourse trigger various subsets of the encyclopaedic structure of a particular form, and the various patterns of activation are what are commonly known as the different senses of a polysemous word. Polysemy, according to this view, is not a characteristic of the word itself but a characteristic of the interaction between the encyclopaedic potential of meaning of the word and the contextual circumstances that selectively actualize parts of that potential.

Prototype Theory, Radial Categories, and Motivated Polysemy

The most successful cognitive semantic explanation of polysemy is based on the prototype theory of Rosch (Rosch, 1975, 1978) and its further elaboration by Lakoff into the theory of radial categories (Lakoff, 1987). Rosch showed that natural categories are structured in terms of prototypical exemplars, i.e. entities which bear the greatest amount of family resemblance with other members of the category, and not in terms of necessary and sufficient defining conditions. The membership of the categories is not categorical but gradient: the better the entities are similar to the prototype, the better members of the category they are.

Lakoff expanded this observation to the study of word senses, and purported that polysemous lexical objects are radial categories: structured networks of related senses that are organised around a central, prototypical sense, and peripheral senses that are linked to the central one by principled semantic relations. The links are not random and are driven by general cognition processes conceptual metaphor, metonymy, image-schema transformation, specialization, generalization which extrapolate meanings across domains in systematic ways, maintaining inferential connections [5].

Geeraerts has worked out the most extensive lexicological implementation of this framework, showing in a series of detailed diachronic and synchronic studies that the semantic structure of polysemous words has the four hallmarks of prototype organization: clustering around a central sense, the typicality of senses, overlap and fuzzy boundaries between senses, and asymmetric semantic derivation relationships where the peripheral senses are motivated by rather than entail the central sense. Most importantly, Geeraerts maintains this prototype structure is not only a property of the manner in which words are learned or stored but is apparent in the contextual range of the word senses in actual discourse: central senses are more common, less context-bound and more pragmatically inert than peripheral senses [7], [9].

Taylor contributes to this image by separating the conceptual organization of a word, i.e. its meaning potential, and the specific instance of that organization in any situation of application [10]. This difference corresponds at the lexical level to the distinction made by Langacker between a linguistic unit and the events of its use, and reflects the cognitive fact that speakers tap into a complex, structured meaning potential in interpreting or producing a polysemous word, not into a separate list of individually stored senses [6].

The Cognitive Domain Matrix and Contextual Activation

The cognitive domain as formulated by Langacker plays a key role in the explanation of the organization of lexical meaning and its contextual activation in discourse. Any consistent part of conceptual organization that can be used as the backdrop against which a linguistic statement characterizes a particular territory or relationship is a cognitive domain. Irreducible experiential primitives are simple domains such as SPACE, TIME, or COLOR. Abstract domains, such as COMMERCE, KINSHIP, or CAUSATION, are in their turn structured by simpler domains, and by the experiential schemas that structure them [6], [8].

The profile of most lexical items is performed in relation to a matrix of various cognitive domains at the same time. The term *buy*, as an example, is a transfer of possession (POSSESSION domain) with a commercial event (COMMERCE domain) in the background, which is in turn a monetary transfer (MONEY domain), willing participants (AGENCY domain), and a legal transfer (LAW domain). The size of this domain matrix that is foregrounded in a particular utterance is dependent on the context of the discourse:

in the utterance she bought her freedom, the MONETARY domain is suppressed and the TRANSFER OF POSSESSION and AGENCY domains are in a metaphoric extension.

This framework offers a theoretically sound explanation of the process of polysemy resolution in discourse with a lot of context. Discourse context acts as a filter selectively across the domain matrix of a polysemous item: it silences certain domains, foregrounds others, and modulates the profile, the part of the structure most specially brought to the fore, of the foregrounded domains. The outcome is a situationally particular realization of the meaning potential of the item that is informed by, but not the same as the encoded prototype. This is lexical modulation as determined in the cognitive semantic framework, and this is the process the truth-conditional implications of which this paper explores.

2. Materials and Methods

Truth-Conditional Content in Highly Contextualized Discourse The Underdetermination Thesis

One of the main arguments of the truth-conditional pragmatics as developed in the most comprehensive works by Recanati and Carston is that the encoded semantic content of a natural language sentence radically underdetermines the truth-conditional content of any utterance of that sentence. This underdetermination is not the old underdetermination, caused by indexical expressions, which involves reference to be determined contextually, but a more fundamental structural underdetermination, which extends to the contents of non-indexical, descriptive expressions [1], [2], [3].

It is the encyclopaedic, prototype-structured nature of lexical meaning that cognitive semantics has recorded that is the source of this further underdetermination. Since lexical items do not instantiate a unique, well-specified conceptual content, but invoke a structured meaning potential of which discourse context picks one, the role of a polysemous item in the truth conditions of an utterance is in any case, to some extent, a consequence of that contextual choice. The statement that the development was expensive does not, in itself, express a truth-evaluable proposition fully, since development and expensive are terms which have a potential of sense whose truth-conditional significance will depend on what type of development is in question, and what sense of expensiveness is contextually applicable.

According to Carston, this underdetermination is reflected in her explicature - the explicit propositional content of an utterance, and she claims that it is not semantically given but pragmatically constructed by a process of inferential development that deepens the encoded logical form of the sentence into a fully propositional form. The difference between explicature of Carston and original meaning of what is said by Grice is the fact that the disclosure between logical form and complete proposition is an issue of inference and not simply of disambiguation and giving reference [11]. In the current context this implies that the truth-conditional content of an utterance that contains polysemous expressions is not merely read off of the encoded senses of the polysemous expressions but is formed, in part, by pragmatic processes that interact with the discourse context in which the utterance is made [3].

Lexical Modulation as Truth-Conditional Process

Carston and Wilson and Carston single out three main modulation processes by which encoded lexical meanings can be added to explicature; narrowing, broadening, and approximation. Narrowing makes the encoded meaning a contextually suitable subset - raw in raw recruits communicates not the general idea RAW (unprocessed, inexperienced in a non-culinary sense), but something more specific. The extension of the encoded meaning to the wider range of values it has, the building was devastated, conveys a message that does not necessarily conform to the exact criteria of destruction that devastate marks. Approximation moderates the encoded message to a contextually-relevant neighborhood - boiling in the soup is boiling conveys a temperature scale, not the physical temperature at 100degC [3], [4].

Of interest to the current discussion, however, is the fact that these modulation processes are not optional pragmatic additions to a truth-conditionally complete semantic representation but are constitutive of truth-conditional content per se. When a speaker

says that the soup is boiling, the truth-value of the statement is not defined by the encoded meaning of boil, a very specific physical fact that the soup is definitely not boiling, but by the pragmatically adjusted meaning that the speaker is expressing: VERY HOT. It is the truth or falsehood with reference to this modulated concept rather than the encoded concept. In this sense, lexical modulation is a truth conditional process.

This has major implications on a cognitive semantic theory of polysemy resolution. When the contextual selection and modulation of a lexical item meaning potential is a component of polysemy resolution, and when polysemy resolution is a component of truth-conditional interpretation, then the cognitive processes of polysemy resolution domain-matrix activation, the prototype-guided sense selection, the encyclopaedic knowledge deployment, are not merely psycholinguistic processes that just accompany truth-conditional interpretation, but are the processes that constitute truth-conditional interpretation. A cognitive semantic study of polysemy resolution is thus, at the same time, a study of the nature of construction of truth conditions in high-contextual discourse.

Highly Contextualized Discourse as a Theoretical Test Case

The term highly contextualized in the title of the paper has theoretical importance. Highly contextualized discourse A highly contextualized discourse is one where the information available to the interlocutors is contextual, specific, and discourse-internal, that is, where the co-text, the commonly known discourse topic, the commonly known background assumptions, and the discourse genre all come to bear on the interpretation of lexical items to a large extent. This is in contrast to the minimally contextualized discourse, i.e. isolated sentences given without the co-text of the sentences, which is the default test case in much of the semantic and philosophical literature on word meaning.

There are two reasons why the theoretical test case of cognitive semantic study of polysemy resolution is high contextualized discourse. To begin with, it represents the circumstances in which natural language is actually practiced: human beings do not understand words in vacuums but in the information-saturated discourse contexts of dialogue, written language, and situated communication. A polysemy resolution theory that is successful with isolated sentences is a theory of an artefact, rather than of the phenomenon. Second, highly contextualized discourse maximizes the extent to which contextual information can modify lexical meaning, thus making visible the whole gamut of modulation possibilities, and exposing the limitations - cognitive and truth-conditional alike - that constrain the extent to which modulation is possible. The strain between the constancy of the encoded meaning and the demands of the truth assessment are the most acute and most theoretically informative in highly contextualized discourse.

3. Results and Discussion

Contextually Activated Semantic Potential: A Theoretical Framework

Theoretical Motivation

In Sections 2 and 3, this convergent theoretical image has been established: polysemous lexical items constitute structured meaning potentials (cognitive semantics), these potentials are contextually actualized in discourse (Langacker, usage-based model), the actualization of potentials is done through pragmatic modulation processes (Carston, Recanati), and the result of these modulation processes is truth-evaluable propositional content (truth-conditional pragmatics). The gap is a single theoretical construct that makes all these insights a part of one, explanatorily consistent, framework that is specifically tuned to polysemy resolution in highly contextualized discourse.

We suggest the construct of Contextually Activated Semantic Potential (CASP) to address this gap. CASP is not a novel theory but a theoretically inspired synthesis: it is a synthesis of cognitive semantic account of meaning potential, relevance-theoretic account of modulation and truth-conditional pragmatic account of propositional enrichment into a unitary analytical focus through which the polysemy resolution process can be studied as a single cognitive-semantic-pragmatic event.

The Architecture of CASP

The meaning of a polysemous lexical item in a particular discourse context, as defined by CASP, is a coordinated activation of three interacting components: Meaning Potential

(MP), Contextual Filter (CF), and Propositional Residue (PR). The architecture is schematically depicted in figure 1 below.

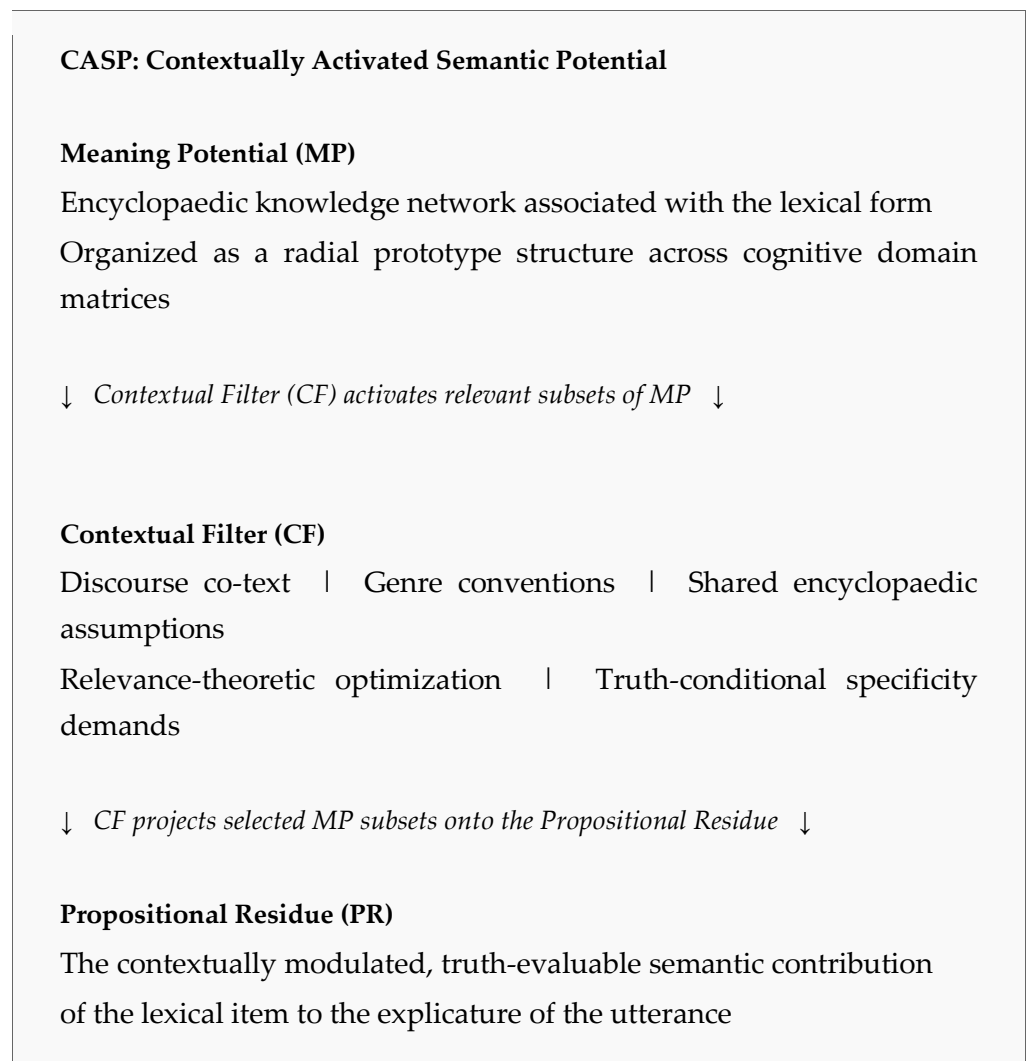


Figure 1. The CASP Architecture

The Meaning Potential (MP)

Meanings Potential– The complete encyclopaedic structure of knowledge which is connected to a lexical form in the mental lexico of a competent user of a language. We follow Langacker and Geeratsts in treating the MP as a structured network, but not as an inventory: it is organized in terms of prototype relations (between more central and more peripheral senses), in terms of motivational links (metaphorical and metonymic extensions of the prototype core), and in terms of domain-matrix profiles (the systems of cognitive domains against which the various senses are profiled) [6], [7], [8], [9].

The MP is, in an important sense, greater than the totality of the dictionary senses of a word. Dictionary entries are necessarily less than the MP of the discrete glosses, but the cognitive reality is richer and more flowing: the MP is not only cognitions of the discrete glosses but is also the schematic relationships between them, the cognitive motivation that unites them, and the gradient of the typicality that orders them. The reason why polysemy resolution is not merely a matter of looking up the right sense' is that the MP does not provide the interpreter with a menu of discrete options but with a structured space of semantic possibilities, in which contextual factors trace a path to the contextually apposite meaning.

The Contextual Filter (CF)

The Contextual Filter is the group of contextual parameters that, in a particular discourse situational condition, activates subsets of the Meaning Potential and inhibits others. The CF functions at several levels of abstraction at the same time.

At the locational co-text level, the Constructional Frame (CF) entails the immediate syntactic and lexical environment of the target item: the semantic types of its arguments and modifiers, the aspectual and modal profile of the predicate, and the information-structural position of the target in the clause. A polysemous verb in a stative construction activates different domain-matrix profiles than the same verb in an agentive, telic construction, just as a polysemous adjective modifying a concrete, physical noun activates different profiles than it would in another syntactic or semantic environment.

At the discourse co-text level, CF entails the discourse topic that has been established, the referential chains established already in the discourse, the pragmatically presuppositions introduced by preceding utterances and the discourse goals of the interlocutors. This discourse-level co-text is particularly thick and information-rich, and it selects strongly against the action of the MP: the discourse context renders some MP subsystems very relevant and others very inaccessible.

On the level of genre and register, CF contains the conventional assignments of meaning, interpretive norms, and lexical sociolinguistics characterizing discourse type. Scientific discourse, legal argumentation, literary prose, and case argument each have their own genre specific constraints on how polymorphous expressive means are to be interpreted, constraints that are part of the competence of the experienced members of the discourse community and that serve as powerful contextual filters over the MP.

Lastly, on the level of relevance-theoretic optimization, the principle of relevance (Sperber and Wilson, 1995) is applied to the CF: among the subsets of MP activated by local and discourse contexts, those that produce the most significant cognitive impact are preferentially chosen. This relevance-theoretic constraint is what prompts the modulation of MP act of action towards a resolution that which is not only cognitively efficient but also cognitively specific enough to meet the truth-conditional conditions of the discourse situation, but not any more so than is necessary to meet the cognitive purpose of communicating.

The Propositional Residue (PR)

The truth-evaluation semantic contribution which is the outcome of the action of the Contextual Filter on the Meaning Potential is the Propositional Residue. The CASP construct that best relates to what Carstairs (2002) refers to as the ad hoc concept associated with a lexical form in a particular context, and what Recanatini (2004, 2010) calls the modulated content of an expression.

The PR possesses three characteristic properties. To begin with, it is propositional: as opposed to the MP, which is a structured space of possibilities, the PR is a conceptually determinate content that determines the truth conditions of the host utterance relative to the discourse context. Secondly, it is cognitively motivated: as opposed to an arbitrary stipulative definition, the PR is based on the MP by the principled actions of the CF, which means that its connection to the locational prototype core is traceable via semantic links. Third, it is contextually indexed: the PR is the contribution of the lexical form in the discussed discourse, not its contribution in general. The same form, in another discourse context, would pass through another CF and produce another PR.

The correlation between MP and PR is neither that of identity (the PR is not merely the prototype of the MP) nor that of arbitrary choice (the PR is not chosen freely out of the MP regardless of the structure of the MP). Instead, it is actuated by a discourse context: the CF acts upon a particular region of the structured potential of the MP, which is directed by the discourse context and constrained by both the internal structure of the MP and the veracity-conditional requirements of the utterance. This is what makes polysemy resolvable have the characteristic combination of contextuality and semantic constraint: the richness makes it flexible; its prototypical structure, its motivational architecture, and the semantic constraints of propositional truth make it constrained.

CASP and the Gradient Character of Polysemy Resolution

Theoretical merits of the CASP framework are that it is inherently gradient in nature, that is, it is observed (and has been observed in psycholinguistics studies) that related senses of polysemous words do not appear as an inventory of clearly defined options but as a continuum of more and less central, more and less contextually constrained readings [12], [13].

This character of gradient is a direct result of the meshwork of MP in the CASP framework. The activation of the CF is gradient in nature because the MP is a prototype-organized radial network, not an enumerated list of senses: the activation of parts of the MP on a salience scale reflecting the gradient of typicality, and of contextual relevance reflecting the gradient of contextual relevance. The PR is therefore not a position in semantic space but a region - a conceptual neighbourhood the centre of which is defined by the most highly activated MP subset and the limits of which are defined by the tolerance limits of the CF truth-conditional specificity requirements.

It implies that given a discourse context, there is no uniquely correct PR but rather a set of contextually admissible PRs, ranked in terms of fit to the MP structure and the CF parameters. The communicative purpose is what makes the difference between choosing one point or the other in this range as the operative truth-conditional content: the extent of specificity to which the discourse must be dedicated, the information that is new or given, and the inferential labor that the context is likely to provide. The CF is more specified in highly contextualized discourse; thus the range of admissible PR is reduced; the resolution is more determinate. In minimally contextualized discourse CF is less determined, the range of admissible PR is broader; the resolution more indeterminate.

Casp in Action: Polysemy Resolution Across Lexical Categories

Nominal Polysemy: The Case of ground

The noun ground is a good example of the complete richness of radial polysemy in the nominal domain. It is structured around a spatial prototype - EARTH SURFACE - with motivated extensions to TERRITORY OR AREA (sporting ground, gaining ground), REASON OR BASIS (grounds for complaint, grounds for argument), BACKGROUND AGAINST WHICH A FIGURE is Perceived (background/ground in Gestalt psychology) and ELECTRICAL REFERENCE POINT (electrical ground). These senses are connected through transparent motivational chains: TERRITORY stretches out of EARTH SURFACE through metonymic connection (ground as the material of territory); REASON OR BASIS stretches out of TERRITORY through metaphor (reasons as the terrain on which arguments stand); BACKGROUND stretches out of EARTH SURFACE through image-schematic transformation (ground as the domain against which figure structure is perceived).

How would the CASP framework examine the resolution of ground in the following, highly contextualized pieces of discourse:

- (1) The committee found insufficient ground to proceed with the investigation.
- (2) Her theoretical argument needed firmer ground before it could bear the weight of the empirical claims she was making.

In (1), the CF is working at various levels at the same time. At the local co-text level, the verb found and the infinitival complement proceed point to an institutional evaluative situation; insufficient quantifies the noun; the noun itself is semantically compatible with being found and with quantification of insufficient. These limitations instantly repress the EARTH SURFACE, TERRITORY, BACKGROUNd and ELECTRIcal senses of the MP, triggering the REASON OR BASIS extension. At the discourse co-text level, the mentioning of a committee and an investigation triggers the legal-institutional domain matrix that further limits the PR: ground does not simply refer to a reason in an everyday sense but rather directly to evidentiary or procedural ground adequate to substantiate institutional action. PR is then akin to: EVIDENTIARY OR PROCEDURAL BASIS Sufficient in terms of the institution to warrant proceeding. This is the truth-evaluable matter of ground in (1), and it is quite more particular than any lexical gloss - it is the outcome of the CF of thick, domain-relate, institutionally grounded activity over the MP.

The same REASON OR BASIS extension of the MP is still activated in (2), but the CF is different since the discourse context is different: this is academic or intellectual discourse on a theoretical argument, not institutional deliberation. The metaphorical substructure of the sense of REASON OR BASIS an argument is a structure that has a foundation, is more clearly triggered by the lexical environment (firmer, bear the weight), and the PR acquires a particularly architectural-structural aspect: CONCEPTUALLY STable and WELL-supported THEORETical FOUNDation. This architecturally inflected PR is the truth conditions of (2): the utterance is true in case and only in case the theoretical argument has a type of foundational stability and internal coherence that would be necessary to sustain the empirical claims which rely on it.

The difference between (1) and (2) exemplifies one important principle of CASP: that the very same MP extension (REASON OR BASIS) will result in varying PRs in varying discourse situations, due to the fact that the CF represents varying domain-matrix activations, different genre constraints, and different truth-conditional specificity requirements. This polysemy resolution gradient is observable here: PR (1) and PR (2) are neither the same nor totally different; they share propositional content in their core (inadequate basis) but differ in the domain and inferential profile that each of them projects.

Verbal Polysemy: The Case of develop

An especially interesting example of polysemy resolution is the verb develop, since its MP has a very abstract and domain-general schematic core - CAUSE to GROW or BECOME MORE ELABORate - which can be extended in an extraordinarily diverse range of cognitive domains: biological growth (develop an embryo), cognitive elaboration (develop an idea), commercial expansion (develop a market), spatial transformation (develop land), photographic processing (develop a film), and many others. The abstractness of the core implies that the CF has to strive comparatively hard to reduce the PR to a contextually specific, truth-assessable content.

(3) Over the past decade, the organization had developed a sophisticated framework for assessing cross-border environmental liability.

(4) The condition had been quietly developing for months before the first clinical symptoms appeared.

(5) As the narrative develops, the reader gradually understands that the narrator's account cannot be trusted.

The local parameters of the CF in (3) (agent the organization), object a sophisticated framework), prepositional complement (to evaluate environmental liability) and temporal adverbial (in the past decade) are all used together to define a COGNITIVE/INSTITUTIONAL ELABORation domain. The time specification (the last decade) is what triggers the telic element of the GROW/BECOME MORE ELABORate schema and any instant or biological interpretations are repressed. The PR: BY Sustained and conscious Institutional Work, A Systematic Framework of Substantial Complexity is gradually built up and refined. The conditions of truth are particular: the truth of (3) is that this type of deliberate, institutional, progressive elaboration occurred during the given period, resulting in the type of systematic framework that has been outlined.

The CF works in a totally different way in (4). The phenomenon (the condition) is a medical pathology, which triggers a biological/pathological domain matrix. The adverb quietly puts the covertness into action - the development is not visible to any observation or any awareness. The prepositional complement (for months) indicates that it extends over time, and the before-clause indicates that the process was fully accomplished before some outside event. The PR is: PROGRESSively develop THRU subclinical stages and to a clinical threshold in a way which cannot be detected by ordinary observation. The truth conditions are domain-specifically medical: (4) holds true when and only when a medical condition experienced this very type of covert biological development.

The domain in (5) is narratological: the topic is a narrative, and the CF involves literary-critical discourse rules according to which narrative is a temporally evolving structure. The time frame presented by the adverb as is parallel, which means that the progression of the story is correlated with the progressive perception of the reader. The

PR here gains a particularly metafictional nature: PROGRESSIVELY UNFolds ITS Structural and Thematical Complexity in A Retrospectively reconfiguring manner of the Interpretive Framework of the Reader. The literary-critical truth conditions are equally: (5) is true, and only when, in the narrative, there is this sort of reconfigurability of retrospect.

The point that the comparison between (3)-(5) makes is that the highly abstract MP core of develop, which makes it sufficiently schematic to be able to encompass all of these domains, necessitates similarly rich CF activation in order to produce a propositionally specific PR. The more schematic the MP is, the more work the CF has to do, and the more the PR will be sensitive to the particular parameters of the discourse situation. It is due to this, in part, to the fact that highly abstract, domain-general polysemous verbs are some of the most contextually sensitive members of the lexicon: their truth-conditional content is, in a strictly speaking, virtually entirely a creation of the CF.

5.3 Adjectival Polysemy: The Case of rich

An example of polysemy is the adjective rich, in which the MP prototype - HAVING ABUNDANT MONetary Wealth - is concrete and semantically rich and where the CF has to suppress particular prototype characteristics instead of just schematizing the core in order to produce the non-prototype readings. This gives a contrasting way of CASP work as compared to high schematic verbal cases.

- (6) The broth is rich with herbs and reduced stock.
- (7) The novel offers a rich portrayal of working-class life in the industrial north.
- (8) The soil is exceptionally rich in this part of the valley.

In (6), the CF must suppress the MONETARY WEALTH feature entirely — broths do not have monetary resources — and activate instead a subset of the MP's periphery that connects richness to INTENSITY OF CONTENT OR FLAVOR. This peripheral sense is motivationally linked to the prototype via a cross-domain metaphor: just as a rich person has an abundance of financial resources, a rich flavor has an abundance of sensory intensity. The PR for (6) is: HAVING AN INTENSE AND COMPLEX SENSORY PROFILE DUE TO THE ABUNDANCE AND CONCENTRATION OF FLAVOR-CONTRIBUTING INGREDIENTS. The truth conditions are straightforwardly evaluative-sensory: (6) is true if and only if the broth's flavor profile meets this description.

In (7), the domain activated is aesthetic-literary, and the CF must construct a PR in which richness applies to a representational object (a portrayal) rather than to a substance or person. The MP subset activated draws on the general schema of ABUNDANCE (as in the prototype) but applies it to REPRESENTATIONAL DETAIL, NUANCE, AND THEMATIC COMPLEXITY. The PR is: CHARACTERIZED BY EXCEPTIONAL DEPTH, COMPLEXITY, AND PARTICULARITY OF REPRESENTATIONAL DETAIL. The truth conditions are literary-critical: (7) is true if and only if the portrayal has these qualitative properties to a degree that exceeds what is standard or expected.

In (8), the domain is agricultural-ecological, and the CF activates the CONTAINING ABUNDANT RESOURCES subset of the MP, applied to soil and understood in terms of mineral and organic content. The PR is: CONTAINING EXCEPTIONALLY HIGH CONCENTRATIONS OF NUTRIENTS AND ORGANIC MATTER SUITABLE FOR PLANT GROWTH. The truth conditions are agronomic: (8) is true if and only if the soil's nutrient composition meets this description.

The rich examples reveal a different aspect of CASP operation than the develop examples. With develop, the MP core was highly schematic and the CF supplied most of the PR's content. With rich, the MP core is semantically dense, and the CF must selectively suppress prototype features while activating motivated peripheral extensions. This produces PRs that are always recognizably connected to the prototype — there is always a detectable residue of the ABUNDANCE schema — but that differ substantially in what the abundance is of and what standard of abundance applies. The truth conditions vary accordingly: the same utterance type — X is rich — has systematically different truth conditions depending on the domain that the CF activates, because the standard of richness — the threshold that must be met for the predication to be true — is domain-specific.

Discourse Density, Contextual Specificity, and The Determinacy of Polysemy Resolution

Discourse Density As A Theoretical Parameter

The fact that the paper concentrates on highly contextualized discourse indicates a theoretical interest in taking discourse density, the extent to which a discourse context specifies, constrains, and enriches the meaning of the expressions it contains, as a theoretically significant parameter of polysemy resolution. The discourse density is not a dichotomy (contextualised vs. decontextualised) but a continuous axis, and the location on this axis has foreseeable implications on the functioning of CASP.

The CF is sparse in discourse of low density isolated sentences, citation examples in philosophical argumentation, decontextualized test stimuli, etc. It gives little local co-text, no discourse-topic activation and no genre-conventional anchoring. The outcome is that the CF only activates the most central, most prototypical subsets of the MP - the ones that are least tied to the context of a particular discourse to be made accessible - and PR is relatively proximate to the prototype core. The resultant truth conditions are thin and schematic, sufficient to the logical reason but not to the rich inferential context of naturalistic discourse.

The CF is hence equally rich in discourse of high density, i.e. long passages of prose in the scientific or legal language, in literary fiction that is narratively dense, in conversational forms institutionally embedded. It offers numerous mutually reinforcing contextual parameters that fuse to a highly specific activation of the MP, which produces a PR that is substantively enriched compared with the prototype core, and which has truth-conditional content far beyond that which is specified by the encoded meaning alone. It is on this theoretical foundation that the paper has taken its specific interest in highly contextualized discourse: it is on this discourse that the entire gamut of CASP functioning is most evident, and on which it is seen most clearly that the constitutive role of lexical modulation in truth-conditional content is most evident.

Convergence and Divergence of Contextual Cues

Another theoretical clarification is the relation between the various cues that make up the CF. Contextual cues seldom work alone in highly contextualized discourse: local co-text, discourse-topic activation, genre conventions, and relevance-theoretic optimization tend to come together in one mutually reinforcing activation of the MP, producing a determinate PR. This intersection is the default situation in well-constructed, contextually consistent discourse, and the intuition behind the belief that the problem of polysemy, though complex in theory, is one that competent language users can easily solve.

Nonetheless, the CASP framework also anticipates instances of cue divergence the circumstances where various levels of the CF draw in different directions, triggering incompatible sets of the MP and generating an unstable or situationally incompatible PR. This is most apparent in figurative language, in irony, and in intentional lexical innovation - those situations where the speaker has taken advantage of the mismatch between what the local co-text would otherwise trigger, and what the discourse context or genre renders salient. In these situations, the undecidability of the PR is not an unsuccessful result of the resolution process but a communicative resource: the speaker takes advantage of the gradient between various MP activations to create an enriched meaning, more complex and more inferentially productive than any one determinate PR would be.

This has a bearing on the comprehension of truth-conditional content in instances of systematic figurative language. A single PR is not the truth conditions of an utterance with a deliberately unresolved polysemous expression, but the association between the competing PRs which the divergent CF cues trigger. In these instances, the truth-conditional content of the utterance is irreducibly complex, a structured combination of many MP activations, not a propositional residue. This is not the failure of the CASP framework but it is one of its theoretical predictions, and is also aligned to the philosophical literature on the semantics of figurative language [14], [15].

Stability, Conventionalization, and Encoded Polysemy

The CASP framework is also used to shed light on the diachronic process by which contextual modulated readings get conventionalized into secondary encoded senses the process which linguists refer to as semantic extension or sense multiplication. Once a given discourse context has repeatedly engaged the same CF configuration and produced the same PR with a given lexical form, the lexical form-PR association can become conventionalized: the meanings of the PR are now encoded into the MP as a new, peripherally encoded sense, making the work of its subsequent activation in another situation less inferential.

This dynamism, recorded in the diachronic analysis of the lexical semantics of both Dutch and English, which is documented by Geeraerts is of theoretical significance to the CASP framework in the sense that it shows the dynamic association between the synchronic and the diachronic aspect of the lexical meaning. The MP is not a fixed ahistorical structure but a dynamic cognitive resource that is constantly revitalized by the repeated contextual activations that language use produces. Every one of these operations of polysemy resolution - every CASP operation - is not just an application of an existing MP but a possible extension of its structure: frequently used PRs are proto-senses and proto-senses are coded extensions [7].

The implications of this dynamic image on the understanding of the truth-conditional content are in the diachronic dimension. Once a previously pragmatic PR becomes an encoded sense - when what once was a contextually varied ad hoc content has become a conventionalized meaning - the truth-conditional implications of such an encoding become stabilized: no longer are they activated by discourse context, but constitute the standing semantic contribution of the word. The line between semantic and pragmatic truth conditions is thus not fixed but mobile and the conventionalization process on which the CASP framework explains the shift in lexical polysemy gives a principled theoretical explanation of lexical polysemy development [16], [17], [18], [19].

4. Conclusion

The paper has come up with a theoretically mediated explanation of polysemy resolution in highly contextualized discourse, with the construct of Contextually Activated Semantic Potential (CASP) as the central theme. It combines cognitive semantic models of lexical meaning (Langacker encyclopaedic domain-matrix theory and Geeraerts prototype-based radial network model) with relevance-theoretic models of pragmatic modulation and truth-conditional pragmatic models of propositional enrichment.

The major theoretical argument is that polysemy resolution cannot be either a purely cognitive procedure of category selection nor a purely pragmatic procedure of inferential enrichment, but a coordinated interplay between these two dimensions, which is mediated by the discourse context within which it is practiced. This interaction is captured in the CASP framework in three interlocking constructs: the Meaning Potential which is the encyclopaedic knowledge structure of a lexical item as a prototype-organised radial network; the Contextual Filter which selectively activates subsets of the Meaning Potential in response to local co-text, discourse-topic, genre conventions and relevance-theoretic optimality; and the Propositional Residue which is the truth-evaluable semantic contribution that is the result of this selective activation.

As can be seen in the theoretical analyses that have been constructed in Section 5, the CASP framework produces accurate, discourse-sensitive statements concerning what the truth conditions of utterances containing polysemous expressions are - statements that are not based on ad hoc stipulation, but on the cognitive structure of lexical meaning. The case studies of ground, develop and rich describe three different patterns of CASP functioning according to three different MP architectures: a moderately schematic noun with institutionally rooted extensions, a highly schematic verb whose PR is nearly wholly defined by the CF, and a semantically dense adjective whose CF needs to repress the features of prototypes instead of schematizing the core.

Theoretical role of discourse density is discussed in Section 6, showing that the determinacy of polysemy resolution predictably varies with the richness of the available

contextual information and that instances of cue divergence, where the CF triggers competing MP subsets, are not failures of the resolution process but are communicative resources used by speakers to achieve enriched inferential effects. The conventionalization in Section 6.3 sets the synchronic CASP into the context of a diachronic image, in which repetitive contextual modulations are involved in the development and reorganization of the MP over time.

The paper has three contributions to the general literature. First, it shows that a cognitive semantic framework, based on the prototype theory, encyclopaedic meaning and domain-matrix activation, is not merely consistent with truth-conditional semantic inquiry, but constitutes, in significant respects, its essential complement: the cognitive structure of lexical meaning is what defines what range of contextually admissible truth conditions utterances containing polysemous expressions can have. Second, it offers a conceptually rigorous explanation of the gradient nature of polysemy solving - its insensitivity to discrete senses and its vulnerability to levels of contextual specification. Third, it encourages the theoretical centrality of highly contextualized discourse as the proper empirical site of inquiry into polysemy on the ground that it is the dense, informationally rich discourse where the entire apparatus of lexical modulation and truth-conditional enrichment is most evident and most theoretically instructive.

Theoretical contribution to the CASP framework in future must deal with the formal description of the functioning of the Contextual Filter, especially the exact correlation between relevance-theoretic optimization and prototype-guided MP activation. Further priorities are the extension of the framework to cross-linguistic polysemy, in which the same conceptual space is partitioned by different prototype structures in different motivational architectures in different languages, and the application of the CASP account to the theoretical analysis of metaphor, metonymy and other systematic figurative extensions of lexical meaning. These extensions, in our opinion, will validate the main idea of the CASP framework that the solution of polysemy in discourse is neither purely semantic nor purely pragmatic but is exactly where cognition, context and truth-conditional content meet.

REFERENCES

- [1] F. Recanati, *Literal Meaning*. Cambridge University Press, 2004.
- [2] F. Recanati, *Truth-Conditional Pragmatics*. Oxford University Press, 2010.
- [3] R. Carston, *Thoughts and Utterances: The Pragmatics of Explicit Communication*. Blackwell, 2002.
- [4] D. Wilson and R. Carston, "A Unitary Approach to Lexical Pragmatics: Relevance, Inference and Ad Hoc Concepts," in *Pragmatics*, N. Burton-Roberts, Ed., Palgrave Macmillan, 2007, pp. 230–259.
- [5] G. Lakoff, *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. University of Chicago Press, 1987.
- [6] R. W. Langacker, *Cognitive Grammar: A Basic Introduction*. Oxford University Press, 2008.
- [7] D. Geeraerts, *Diachronic Prototype Semantics: A Contribution to Historical Lexicology*. Clarendon Press, 1997.
- [8] R. W. Langacker, *Foundations of Cognitive Grammar: Vol. 1. Theoretical Prerequisites*. Stanford University Press, 1987.
- [9] D. Geeraerts, *Theories of Lexical Semantics*. Oxford University Press, 2010.
- [10] J. R. Taylor, *Linguistic Categorization*, 3rd ed. Oxford University Press, 2003.
- [11] H. P. Grice, "Logic and Conversation," in *Syntax and Semantics: Vol. 3. Speech Acts*, P. Cole and J. Morgan, Eds., Academic Press, 1975, pp. 41–58.
- [12] J. Rodd, M. G. Gaskell, and W. Marslen-Wilson, "Making Sense of Semantic Ambiguity: Semantic Competition in Lexical Access," *J. Mem. Lang.*, vol. 46, no. 2, pp. 245–266, 2002, doi: 10.1006/jmla.2001.2810.
- [13] J. N. Williams, "Processing Polysemous Words in Context: Evidence for Interrelated Meanings," *J. Psycholinguist. Res.*, vol. 21, no. 3, pp. 193–218, 1992, doi: 10.1007/BF01068072.
- [14] N. Stern, *The Economics of Climate Change and Energy Transition*. Oxford: Oxford University Press, 2024.
- [15] E. Camp, "Showing, Telling, and Seeing: Metaphor and 'Poetic' Language," *The Baltic International Yearbook of Cognition, Logic and Communication*, vol. 3, pp. 1–24, 2008.
- [16] J. Stern, *Metaphor in Context*. MIT Press, 2000.
- [17] D. Sperber and D. Wilson, *Relevance: Communication and Cognition*, 2nd ed. Blackwell, 1995.

-
- [18] E. Rosch, "Principles of Categorization," in *Cognition and Categorization*, E. Rosch and B. B. Lloyd, Eds., Lawrence Erlbaum, 1978, pp. 27–48.
- [19] E. Rosch, "Cognitive Representations of Semantic Categories," *J. Exp. Psychol. Gen.*, vol. 104, no. 3, pp. 192–233, 1975, doi: 10.1037/0096-3445.104.3.192.