

Affective Meaning in Language and Discourse: A Bibliometric Analysis

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ABSTRACT

This study investigates the evolution, intellectual structure, and thematic analysis of affective meaning research using bibliometric analysis of 154 English-language articles and review articles from 1994 to 2025 in the Web of Science Core Collection. The publication trend, collaboration network, co-citation network, co-occurrence of keywords, clustering of themes, and temporal evolution were explored using CiteSpace. A significant increase in the number of research publications after 2018 is evident, as well as widespread geographic involvement and relatively scattered institutional and author collaboration. Cited-author and cited-journal networks, on the other hand, show a much larger common intellectual ground that includes systemic functional linguistics and Appraisal, stance and evaluation studies, corpus linguistics, pragmatics and interactional approaches. Some co-existing trends of research are also identified in the present corpus through keyword and cluster analyses using corpus-based, interactional, multimodal, cross-cultural, second-language and context-specific approaches. Temporal patterns suggest that these developments occurred in conjunction with ongoing language- and discourse-based issues, revealing a process of gradual thematic diversification instead of sudden thematic replacement. Therefore, the results suggest a field that, while intellectually connected, is conceptually plural. Future studies should focus on more explicitly comparing and integrating constructs that overlap, cross-linguistic validation, and methodological designs that integrate corpus and contextual evidence and multimodal interpretation.

1. Introduction

Affective meaning is one of the fundamental elements in linguistic and discourse interaction. Speakers and writers not only convey propositional content, they also express feelings, evaluate people and events, take a stance towards propositions and negotiate interpersonal relations. Previous studies in the field of early language development have shown that affect is not limited to emotional words. Ochs and Schieffelin (1989) indicated that affect can manifest in the phonological, grammatical, lexical and discourse resources. Biber and Finegan (1989) defined stance as the "linguistic expression of attitudes, feelings, judgments and commitment" in registers (p. 15). As a result, these studies set the ground for later studies in that the affective meaning is not just a matter of labeling emotional states, but is spread out in the linguistic choices.

But the research that follows has not focused on a common idea or analytical framework. The phenomena have been studied under a variety of phrases, including affect, emotion, evaluation, stance, attitude, appraisal, emotive meaning and affective stance. For instance, Hunston and Thompson (2000) view evaluation in a much wider sense as the manifestation of attitude, feeling and value and highlight its interpersonal and discourse organizing role. In contrast, Martin and White (2005) offer a systemic account of evaluative meaning based on Appraisal and identify Attitude, Engagement and Graduation and differentiate between Attitude/Affect and Attitude/Judgment and Appreciation. Another point of view is taken by stance research, in which affective and evaluative meanings are associated with the positioning of speakers or writers towards propositions and interlocutors. Although there is some overlap between these traditions in their focus on interpersonal meaning, they differ in their conceptual range, analytic categories, and units of analysis.

This plurality of concepts has increased the analytical means available to investigate affective meaning, but it has also made the research object more "problematic". Bednarek (2009b), for example, discriminates the attitudinal lexis from the targets of attitudinal evaluation, and proposes the concept of covert affect to explain the evaluative meaning which cannot be straightforwardly expressed by isolated lexical items. Corpus-based studies also reveal that evaluation can be realized in a pattern of collocation, phraseology, register and semantic prosody and is not always expressed in clearly evaluative phrases (Partington, 2004; Bednarek, 2008). Thus, research on contiguous terms can be on similar but not identical aspects of affective meaning. Thus, it is not just a matter of terminological diversity, but of the fact that there are different assumptions about the nature of affective meaning and how it can be determined.

At the same time, individual strands of research suggest that the empirical scope of affective-meaning analysis has broadened beyond lexical and grammatical description. Du Bois's (2007) stance triangle conceptualizes stance as an intersubjective process involving evaluation, positioning, and alignment, foregrounding the interactional relations through which evaluative meaning becomes consequential. Multimodal research further questions an exclusively verbal account of affect. Feng and O'Halloran (2012), for example, demonstrate that emotive meaning in visual discourse may be realized through facial expression, touch, body orientation, and other semiotic resources. Corpus, interactional, contextual, and multimodal studies therefore point to several important research trajectories. What remains less clear is how these trajectories relate to one another at the level of the field as a whole, which intellectual traditions have

provided their shared foundations, and how their relative prominence has changed over time.

This problem is difficult to address through conventional narrative review alone because relevant research is distributed across pragmatics, discourse analysis, systemic functional linguistics, corpus linguistics, social semiotics, translation, and communication research. Bibliometric analysis offers a complementary means of examining such a dispersed literature by identifying large-scale patterns in publication activity, collaboration, intellectual influence, co-citation, and keyword relationships (Donthu et al., 2021). CiteSpace is particularly useful for this purpose because it represents scholarly fields as temporally evolving networks and relates research fronts to their intellectual bases through co-citation, clustering, and temporal visualization (Chen, 2006, 2017). However the mapping of bibliometric does not in itself mean that there is a theoretical equivalence or that the concepts became connected. Frequency, centrality, co-citation and clustering can be used to identify the structure found in a specific data set, but this structure needs to be explained in the context of the underlying literature of the language. It is especially crucial for affective meaning as adjacent constructs can be bibliographically linked even if they are not conceptually equivalent.

Lately, some bibliometric research has started to sketch adjoining parts of this research panorama. Phan (2025) reviewed 231 articles from 2003 to 2025 that were indexed in Scopus and discovered four types of research streams, including interpersonal meaning, corpus-assisted critical discourse analysis, contextual evaluation, and individual components of the Appraisal system. The book is a valuable description of the development and evolution of Appraisal research, albeit with a deliberately structured focus on one theoretical framework. Affective stance, semantic prosody, interactional positioning, emotion discourse, and multimodal emotive meaning are thus not included in, or appear on the outside of the periphery of, the bibliometric boundary.

Liu et al. (2026) looked at a broader level and analyzed 1,187 publications pertaining to linguistic evaluation in the Web of Science from 1992 to 2023. Their analysis, based on stance, evaluation and appraisal as the major retrieval concepts, uncovers trends in evidentiality, affect, appraisal, intersubjective stance, corpus-assisted approaches, identity and social-media discourse. The study demonstrates that linguistic evaluation is structured by several theoretical traditions. Its broad coverage, however, necessarily places affect within a much larger evaluative domain. The relationships specifically connecting affective meaning, emotive meaning, evaluative meaning, attitudinal meaning, and affective stance are therefore not its primary analytical focus.

The existing bibliometric literature thus leaves an intermediate analytical space insufficiently mapped. A single-framework approach may exclude parallel traditions concerned with affect, while a broad evaluation-based approach may obscure the particular relationships among affect-centered constructs, methods, and discourse applications. An affect-centered bibliometric perspective can address this gap by examining these partially overlapping traditions together. Such an approach makes it possible to investigate not only how much research has been produced, but also how the field is distributed, which intellectual traditions are repeatedly cited, which concepts occupy important positions in the research structure, and how thematic orientations have developed over time.

Accordingly, the present study maps affective meaning research in language and discourse from 1994 to 2025 using bibliometric analysis and CiteSpace. The dataset includes scholarship in which affective, emotive, evaluative, and attitudinal meaning, or affective stance, is substantively investigated as a linguistic or discourse phenomenon. Performance indicators are combined with collaboration analysis, co-citation analysis, keyword co-occurrence, thematic clustering, and temporal visualization in order to examine the development, intellectual structure, and thematic evolution of this research area. The study addresses the following questions:

- i. How has the volume and geographical, institutional, and authorial distribution of affective meaning research developed from 1994 to 2025?
- ii. Which cited authors, journals, and references constitute the principal intellectual foundations of affective meaning research?
- iii. What major keywords and thematic clusters characterize the research structure of affective meaning research?
- iv. How have these themes evolved over time, and what broader shifts can be identified in the development of affective meaning research?

By addressing these questions, the study provides a structural and temporal account of an area that has developed across several linguistic and discourse traditions. The resulting networks are interpreted in relation to the theoretical and methodological traditions represented in the underlying literature. In this way, the study complements existing framework-specific and broad evaluation-based bibliometric research by placing affect-centered meaning at the analytical center and examining its intellectual connections, thematic organization, and historical development within a common bibliometric framework.

2. Literature Review

The bibliographic data were collected from the Web of Science Core Collection (WoSCC) on 30 August 2026. WoSCC was selected due to its capability to offer standardized bibliographic metadata and cited-reference information, which can be used for bibliometric and science-mapping analysis (Chen, 2006, 2017; Donthu et al., 2021). Publications included in the Social Sciences Citation Index (SSCI), Arts & Humanities Citation Index (A&HCI), and Emerging Sources Citation Index (ESCI) were considered. Since partially overlapping terminology has been used in the development of research regarding affective meaning, the term affective meaning was not used to limit the search. A second set of topic terms were used to narrow the retrieval to language, discourse, communication, text, translation and semiotic meaning-making studies related to affect. The aim of this two-part search strategy was to obtain conceptually related linguistic and discourse research and to minimize the number of records in which affective meaning was primarily related to non-linguistic phenomena.

For reproducibility, the complete WoS search query should be reported in the final manuscript as follows:

TS=(“affective meaning” OR “emotive meaning” OR “evaluative meaning” OR “attitudinal meaning” OR “affective stance”) AND TS=([INSERT THE EXACT SECOND-SET TERMS USED IN THE ORIGINAL WoS SEARCH])

Only English-language articles and review articles were included. Because the bibliometric analysis was designed to cover complete publication years through 2025, records formally assigned a publication year of 2026 were excluded before screening. The initial WoS retrieval produced 200 records. Five 2026 records were removed, leaving 195 records for relevance screening.

Lexical retrieval alone does not guarantee conceptual relevance, particularly when terms such as affective, evaluative, and emotive are used across different disciplinary contexts. The 195 records were therefore screened manually on the basis of titles and abstracts before bibliometric analysis.

Studies were retained when affective, emotive, evaluative, or attitudinal meaning, or affective stance, constituted a substantive object of linguistic, pragmatic, discourse, translation, lexical-semantic, multimodal, or semiotic analysis. Records were excluded when the target expressions referred primarily to non-linguistic phenomena, such as the affective meaning of places or music; when the principal focus was neurological, clinical, psychophysiological, or experimental processing; when the study concerned automatic sentiment or affect classification rather than linguistic meaning-making; or when the target concept appeared only incidentally.

Fifteen records whose relevance could not be determined from the initial title-and-abstract screening were examined further using the same inclusion and exclusion criteria. Eight of these records were retained and seven were excluded. The final dataset therefore consisted of 154 publications, with 41 records excluded from the 195-record screening pool.

The resulting dataset should therefore be understood as a deliberately delimited corpus of WoS-visible, English-language research in which affect-centered meaning is substantively treated as a linguistic or discourse phenomenon, rather than as an exhaustive representation of all research involving affect or emotion.

The final dataset was analyzed at three complementary levels. First, performance analysis was used to examine annual publication output and the distribution of publication sources, countries/regions, institutions, and authors. Second, science-mapping analysis was used to investigate collaboration structures and intellectual foundations through country/region, institutional, author, cited-author, cited-journal, and reference networks. Third, keyword co-occurrence, thematic clustering, and timeline visualization were used to examine the conceptual organization and temporal development of the field.

For diachronic interpretation, the publication history was divided into three broad periods: Emergence (1994–2006), Development (2007–2017), and Expansion (2018–2025). These periods were determined mainly based on the annual publication trajectory, which indicates less and intermittent publication activity prior to 2007, more constant production between 2007 and 2017, and a sharp surge from 2018 onwards. These were used as descriptive analytical periods not as rigid theoretical boundaries. The keywords and timeline patterns were then interpreted within the periods rather than being used to stand alone to define the periods.

This distinction is crucial since the temporal analysis aimed to uncover continuity, overlap and shifts in thematic emphasis rather than to a priori predetermine that the

field evolved through distinct theoretical phases. The previous ideas and research directions thus continued to exist in subsequent stages.

WoS records were downloaded in plain-text format (full records with cited references) and analyzed using the CiteSpace 6.4 software. R1. Co-occurrence, co-citation, clustering and research-front analysis were selected as the characteristics of CiteSpace, as this software allows the visualization of structural and temporal relationships among publications.

The principal collaboration network, keyword network and co-citation network were analyzed for the period 1994-2025 using the g-index as the node selection criterion. The main collaboration and co-citation analyses were carried out over a one-year time slice and with $k=25$. A preliminary test of parameters suggested that a relatively small data set could be more usefully clustered in four years with $k=25$ for thematic clustering.

In total, nine major clusters which were retained for interpretation were generated from keyword clustering. A modularity value of $Q=0.8168$ and a weighted mean silhouette score of $S=0.9357$ were obtained from the cluster solution, which suggests good separation between clusters and good within-cluster consistency. Bibliographic-term labels clustered were not taken as substantive interpretations. The terms and documents of each cluster were studied instead, and more general analytical themes given according to the conceptual orientation of the cluster.

To explore the appearance, persistence and overlap of major research themes over the course of the study, a Timeline View was created. Rather than using the occurrence of a keyword at a given time in the temporal visualization as a sign of a specific paradigm shift, annual publication trends and keyword and cluster structures were used to interpret the visualization.

The keyword burst detection was performed to find out keywords that have been experiencing sudden and persistent growth in academic interest. The first analysis was performed with $\alpha=2.0$, $\gamma=1.0$ and a minimum burst duration of 2 years. This configuration did not detect any keyword bursts.

Next, sensitivity tests were performed by decreasing the value of α to 1.5, 1.0 and 0.5, respectively, and keeping γ and the minimum burst duration fixed, to see if this outcome was parameter-dependent. It was found that no items were burst with any of these settings. Instead of going further in relaxing the parameters so that the burst terms were found, this negative result was kept.

The lack of detectable bursts was therefore described descriptively: It means that there was no individual keyword in the data set that was sufficiently different in its increase to qualify as being unusual and sharp. It was not treated independently as proof of the absence of thematic change, and was interpreted together with the Timeline View and cluster structure.

Before the final networks were interpreted, bibliographic variants were reviewed to reduce artificial fragmentation. Obvious variants of author names and journal titles referring to the same source were consolidated. Keyword normalization was restricted to formal or clearly equivalent variants, such as spelling, capitalization, singular/plural, or other non-conceptual differences where applicable.

Importantly, theoretically adjacent terms were not merged simply because they shared an affective or evaluative dimension. Constructs such as affective meaning, affective stance, evaluative meaning, attitudinal meaning, appraisal, emotion, and emotive meaning were retained as analytically distinct when they represented different terminological or theoretical traditions. This distinction was necessary because one objective of the study was precisely to examine how such constructs coexist and relate within the bibliometric structure.

Finally, none of the individual bibliometric indicators was taken on its own. Publication frequency, network centrality, co-citation frequency, clustering and temporal position represent varying aspects of research field. So, the analysis focused on convergence across the various indicators, and did not take the more frequent keyword as necessarily the more theoretically influential, or the more cited as necessarily the same historical person as the more central node. This aligns with the concept that performance analysis and science mapping should complement each other, and not be used interchangeably (Donthu et al., 2021).

3. Research Methods

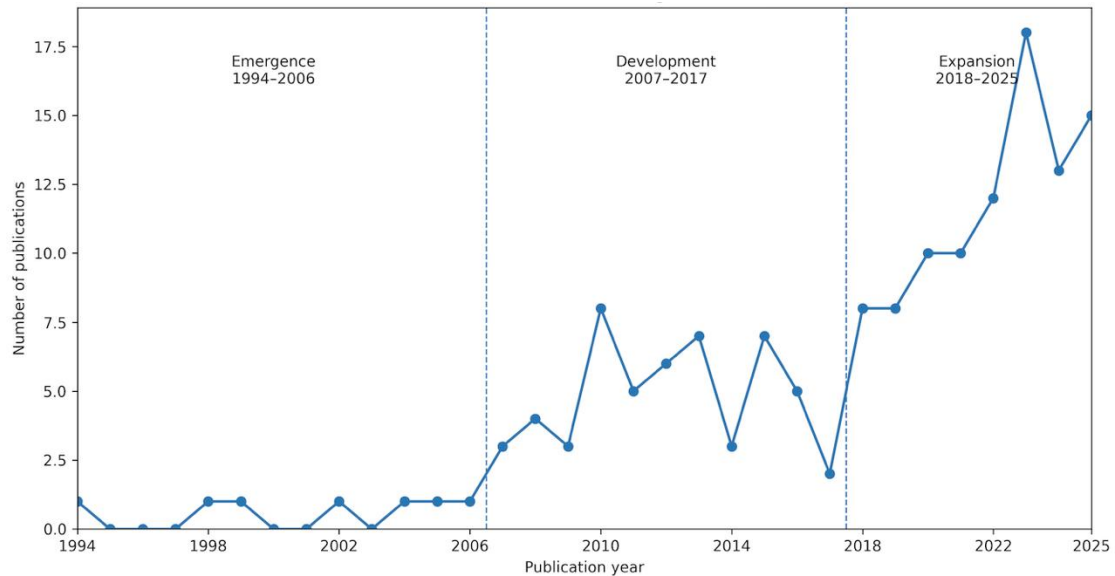
This section shows the bibliometric findings on the evolution, intellectual structure and thematic evolution of affective meaning research in the period 1994–2025. The analysis is carried out, ranging from the general characteristics of the literature (development and distribution) to the collaboration patterns, intellectual foundations, keyword structure and thematic evolution. The publication output and publication sources per year are explored in Section 3.1 and the geographical, institutional, and authorial distribution of research is explored in Section 3.2. The cited-author, cited-journal, and reference co-citation structures of the field are presented in Section 3.3, and Section 3.4 explores the major concepts and research foci by analyzing the co-occurrence of the keywords. Finally, Section 3.5 shows the thematic clusters and their evolution in time. These analyses, taken as a whole, respond to the four research questions, describing the growth of the field and the structure and evolution of its research activity and intellectual base, as well as its main themes over time.

3.1 Development Chronologically and Sources for Publication

Initially, annual publication output was examined to see how research activity scaled and continued over time (1994–2025) to gain insight into the development of affective meaning research over time. This spread of the 154 publications shows three general periods of growth: Emergence (1994–2006), Development (2007–2017), and Expansion (2018–2025). These stages delineate an early period when publications were few and sporadic, followed by a more active research phase with more regular annual publications, and the later phase of significantly increased annual publication output. The annual number of publications in these three periods is depicted in Figure 1.

In the emergence period, the publication activity was rather limited and intermittent. Only seven publications (4.5%) were published between 1994 and 2006, and there were several years in which no publications were made. During the Development period, there were 53 publications (34.4%) that were more sustained in research activity. In 2010, the annual output was eight publications and in 2011–2017 it varied between two and seven publications.

Figure 1. The Number of Publications on Affective Meaning Per Year (1994-2025)



There was a significant rise from 2018 onwards. 94 publications (61.0%) of the dataset were published during the expansion period. The number of publications increased from 8 in 2018 and 2019 to 10 in 2020 and 2021 and 12 in 2022. The most publications in a year were in 2023 (18), followed by 13 in 2024 and 15 in 2025. Therefore, as can be seen in Figure 1, sporadic publications early in the year have been succeeded by regular publications, and then, significantly greater publications after 2018.

A total of 154 publications came from 91 sources of publication. *Journal of Pragmatics* was the most prolific publication venue with 27 (17.5%) publications, followed by *Text & Talk* with 9 (5.8%). As can be seen in Table 1, there were five publications in *Frontiers in Psychology* and five in *Functions of Language*, four in *Corpus Pragmatics*, and three in each of *Discourse Studies* and *Journal of Psycholinguistic Research*. These seven sources combined represented 56 publications (36.4%). However, 70 sources had only one publication and another 14 had two publications, suggesting significant fragmentation of the rest of the journal market.

Table 1. Publication Sources in Affective Meaning Research

Rank	Publication source	Publications	Percentage
1	<i>Journal of Pragmatics</i>	27	17.5%
2	<i>Text & Talk</i>	9	5.8%
3	<i>Frontiers in Psychology</i>	5	3.2%
3	<i>Functions of Language</i>	5	3.2%
5	<i>Corpus Pragmatics</i>	4	2.6%
6	<i>Discourse Studies</i>	3	1.9%
7	<i>Journal of Psycholinguistic Research</i>	3	1.9%

3.2 Geographical, Institutional, and Authorial Distribution

To address the distribution of affective meaning research across research communities, it took into account three related dimensions: country/region, institution and author collaboration. These dimensions differentiate geographical scales of publishing to the

extent of direct scholarly linkages between institutions and individual scholars. This leads to the creation of collaboration structures as illustrated in Figure 2.

Figure 2. Collaboration Networks in the Field of Affective Meaning



The network had 182 nodes, 108 links and a density of 0.0066 at the institutional level. The biggest connected component comprised seven institutions, which accounted for about 3.8% of all the institutional nodes. The University of Helsinki published the most (six publications) followed by the University of New South Wales Sydney and Hong Kong Polytechnic University (both 4 publications). About three publications were produced by the University of Technology Sydney, the University of Windsor, Australian Catholic University, Uppsala University, Simon Fraser University, and the University of Haifa, respectively.

The author collaboration network had 235 nodes and 227 links, and a density of 0.0083. The biggest connected component in it had nine authors. Monika Bednarek, Douglas Walton, Fabrizio Macagno, Maite Taboada and Helga Hilmisdottir had three publications each. Most other authors included in the network have two or fewer.

As a whole, the collaboration results demonstrate relatively low institutional connectivity and author-level connectivity and higher geographical connectivity. The different dimensions are explored in the Discussion.

3.3 Intellectual Foundations

3.3.1 Cited authors

The cited-author network was much more connected than the direct author collaboration network. It was composed of 797 cited-author nodes and 2,610 links and had a network density of 0.0082. The citation authors with the highest number of nodes were in its largest connected component (698 nodes, or 87.6% of all cited-author nodes). The most often cited identifiable authors are given in Table 2. Records with the status of UNKNOWN were not used since they could not be assigned to a particular scholar. With 37 citations Halliday was first, Martin was second with 33 and Biber third with 32. Bednarek was cited 21 times, Hunston received 19 citations, Stubbs and Ochs each got 17, Du Bois was cited 14 times, Sinclair 13 times, Aijmer 12 and White 10.

The leading cited authors span several established traditions, including systemic functional linguistics and Appraisal, stance and evaluation studies, corpus linguistics, and interactional approaches to affect and stance. Representative works from these

traditions include Martin and White (2005), Biber and Finegan (1989), Hunston and Thompson (2000), Bednarek (2008, 2009b), Ochs and Schieffelin (1989), and Du Bois (2007). The implications of this multi-traditional citation structure are considered in the Discussion.

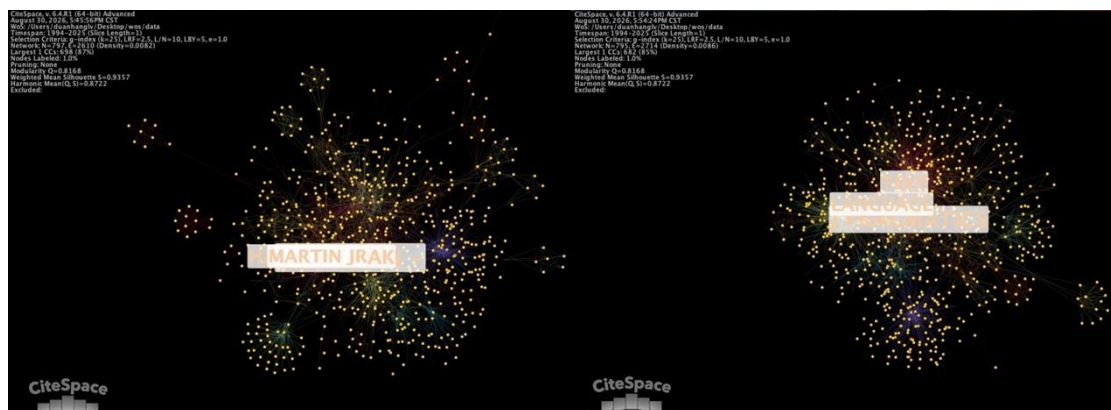
Table 2. Most Frequently Cited Authors

Rank	Cited author	Frequency
1	Halliday, M. A. K.	37
2	Martin, J. R.	33
3	Biber, D.	32
4	Bednarek, M.	21
5	Hunston, S.	19
6	Stubbs, M.	17
6	Ochs, E.	17
8	Du Bois, J. W.	14
9	Sinclair, J.	13
10	Aijmer, K.	12
11	White, P. R. R.	10

3.3.2 Cited journals and references

The cited-journal network showed a similarly cohesive structure, containing 795 nodes and 2,714 links, with a density of 0.0086. Its largest connected component contained 682 nodes (85.8%). The most frequently cited journal was the *Journal of Pragmatics* (67), followed by *Language* (35), *Text* (33), *Pragmatics* (30), *Discourse Studies* (26), *Applied Linguistics* (25), *Text & Talk* (23), and *Research on Language and Social Interaction* (19), as shown in Figure 3.

Figure 3. Intellectual foundations of affective meaning research.

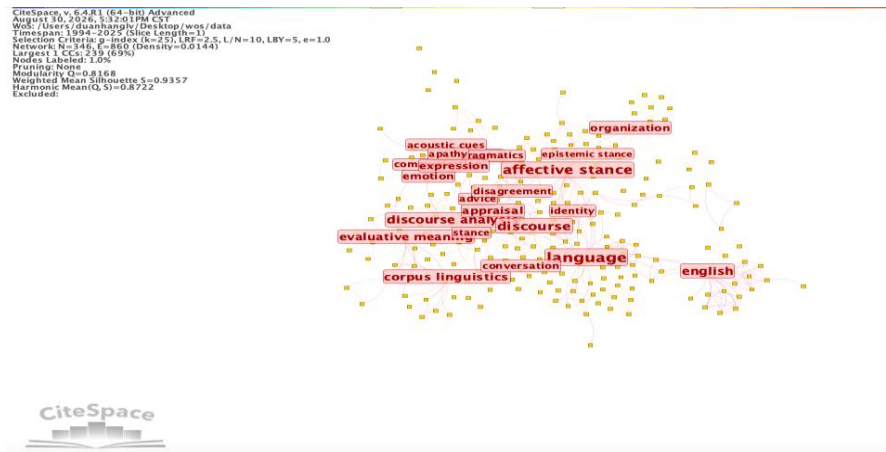


The reference co-citation network was more dispersed than the cited-author and cited-journal networks. It contained 601 nodes and 1,329 links, with a density of 0.0074. The highest individual co-citation frequency was four, recorded for Bednarek (2006). References by Hunston (2004), Bednarek (2008), and Quirk et al. (2010) each recorded a co-citation frequency of three. No individual reference displayed a co-citation frequency comparable with the leading nodes in the cited-author or cited-journal networks.

3.4 Keyword Co-occurrence and Major Research Foci

Keyword co-occurrence analysis was used to examine the major concepts and their structural relationships within the dataset. The keyword network contained 346 nodes and 860 links, with a density of 0.0144. The network structure is shown in Figure 4.

Figure 4. Keyword co-occurrence network of affective meaning research (1994–2025)



The network displays a relatively broad conceptual structure in which several recurrent terms occupy more visible and interconnected positions. Alongside broader concepts like language and discourse are more specific ones like affective stance, evaluative meaning, appraisal, attitudinal meaning, emotion, and stance. The keyword structure also groups together terms related to the corpus, such as corpus linguistics and semantic prosody. Table 3 shows the 15 most common keywords along with betweenness centrality to indicate how prominent and bridging these words are.

Table 3. The Most Common Keywords and Their Relevance

Rank	Keyword	Frequency	Centrality
1	language	18	0.48
2	affective stance	13	0.30
3	evaluative meaning	10	0.08
4	discourse analysis	9	0.12
5	discourse	8	0.17
6	corpus linguistics	8	0.09
7	identity	5	0.04
8	appraisal	5	0.14
9	model	5	0.00
10	attitudinal meaning	5	0.03
11	English	5	0.15
12	emotion	4	0.07
13	emotive meaning	4	0.08
14	stance	4	0.05
15	semantic prosody	4	0.00

In the created dataset, language was the most frequently occurring attribute with 18, and the highest betweenness centrality of 0.48. Affective stance ranked second in frequency (13) and also showed relatively high centrality (0.30). Other recurrent terms included

evaluative meaning, discourse analysis, discourse, corpus linguistics, appraisal, attitudinal meaning, emotion, emotive meaning, stance, and semantic prosody.

The keyword network therefore contains several coexisting groups of terms associated with affective and evaluative concepts, discourse-oriented analysis, stance, Appraisal, and corpus-based research. Terms such as identity and English also occur among the more frequent keywords, indicating the presence of social and language-specific applications within the dataset.

3.5 Thematic Structure and Evolution

Keyword clustering identified nine clusters retained for interpretation. The cluster solution had a modularity value of $Q = 0.8168$ and a weighted mean silhouette score of $S = 0.9357$, indicating strong separation among the identified clusters and high within-cluster consistency. Figure 5a presents the cluster network, and Table 4 reports the size, silhouette score, mean year, and analytical theme of each retained cluster.

Table 4. Major Thematic Clusters in Affective Meaning Research

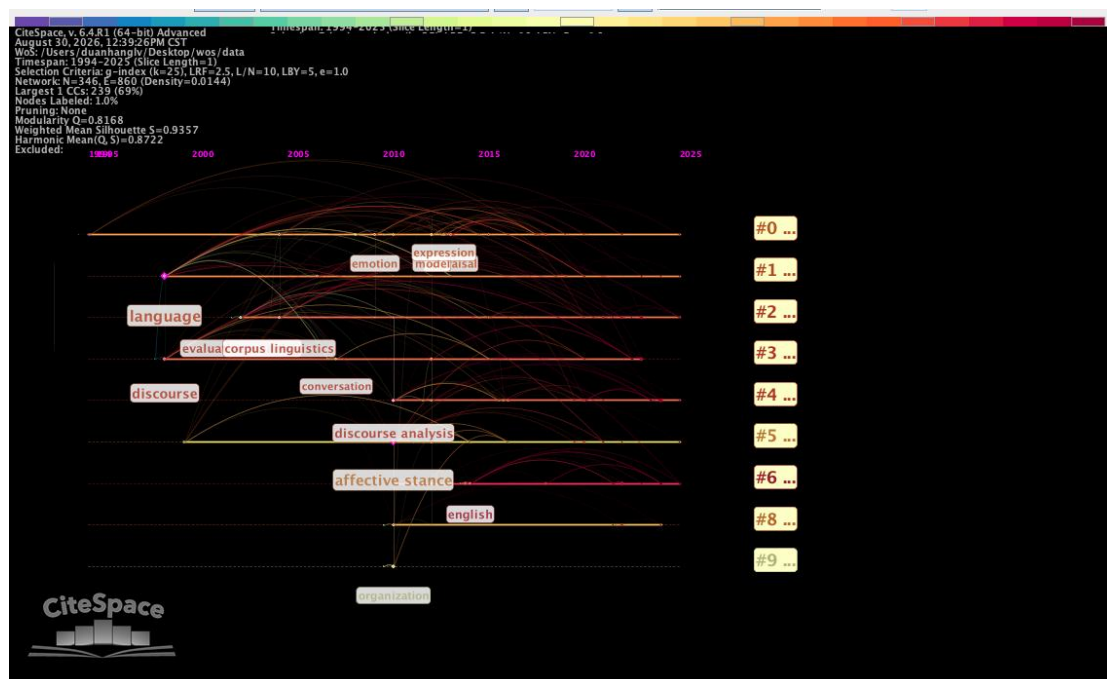
Cluster	Size	Silhouette	Mean year	Analytical theme
#0	35	0.968	2013	Attitudinal meaning and multimodal/social-semiotic realization
#1	34	0.979	2015	Pragmatic and constructional encoding of attitude
#2	31	0.873	2015	Corpus-based research on evaluative meaning
#3	31	0.867	2014	Evaluation in media and institutional discourse
#4	30	0.937	2018	Appraisal and multimodal/academic discourse analysis
#5	30	0.927	2015	Affective and evaluative stance in interaction
#6	29	0.958	2019	Cross-cultural and second-language attitudinal evaluation
#8	10	0.997	2015	Emotive meaning in health communication
#9	9	0.982	2010	Cross-cultural emotion concepts and translation

The retained clusters show several distinct thematic concentrations. Clusters #0 and #4 contain research associated with attitudinal or Appraisal-based analysis and multimodal or social-semiotic meaning-making. Cluster #2 represents corpus-based research on evaluative meaning, while Cluster #5 contains research on affective and evaluative stance in interaction. Cluster #6 concerns cross-cultural and second-language attitudinal evaluation, and Cluster #9 contains research connecting cross-cultural emotion concepts and translation. Cluster #8 represents a smaller cluster focused on emotive meaning in health communication. Figure 5 presents the temporal distribution of these themes across the three publication periods.

During the Emergence period (1994–2006), the visible keyword structure was limited and included broad terms such as language and discourse. Because this period contains

only seven publications, its thematic structure is based on substantially fewer records than the later periods.

Figure 5. Thematic Development of Affective Meaning Research



During the Development period (2007–2017), terms associated with evaluation, corpus linguistics, emotion, conversation, and discourse analysis became more visible in the timeline. These terms occurred alongside rather than replacing earlier language- and discourse-related concepts.

During the Expansion period (2018–2025), affective stance remained visible, while the timeline and cluster structure also contained multimodal, cross-cultural, second-language, specialized discourse, and corpus-related themes. Earlier broad terms such as language and discourse continued to appear alongside these later thematic orientations. This temporal distribution shows continuity alongside increasing thematic differentiation across the three periods. The broader interpretation of this pattern is developed in the Discussion.

No statistically detectable keyword burst was identified under the initial parameter settings or the sensitivity settings reported in Section 2.5. No individual keyword in the 154-publication dataset therefore met the specified criteria for an unusually rapid and sustained increase in frequency.

This negative result is reported independently of the Timeline View and is not interpreted as evidence that thematic change was absent. Its relationship to the temporal patterns identified above is considered in the Discussion.

4. Results

This section interprets the bibliometric findings in relation to the four research questions, with particular attention to the structural tensions revealed across different levels of analysis. Instead of recapitulating the descriptive results, the discussion centers

on four issues: the simultaneous growth of publication and the fissured pattern of collaboration, the intellectual connectedness and the conceptual plurality, the growing thematic and methodological directions, and the temporal pattern of cumulative thematic development. These dimensions are discussed in conjunction to provide an understanding of the nature of affective meaning research as the bibliometric structure shows, and, crucially, what it does not show alone.

4.1 Expanding research in the context of a fragmented collaboration

The publication trend indicates that affective meaning research has evolved from a fragmented and small group of publications to a more sustained research field with the most obvious growth after 2018. This trend mirrors changes in the context of research on related evaluative-language. Li et al. (2020) noted that the number of publications on evaluation, appraisal and stance has seen a significant increase, and Zeng et al. (2024) found that Web of Science data on Appraisal Theory from 2003 to 2023 has been on the rise. Phan (2025) also found that Appraisal Theory research had a consistent trend of growth over the years. The research also shows that Appraisal Theory is still applicable in other fields, such as translation research, as reported in recent systematic reviews (Liu et al., 2022; Firouzi & Farahzad, 2025).

However, as the collaboration results indicate, the increase in publications and greater geographical involvement has not been reflected in similarly dense institutional or author networks. This distinction is important because publication output and collaboration measure different aspects of research fields, with co-authorship analysis focusing on the social relations between researchers and research groups, instead of just the volume of research (Zupic & Čater, 2015; Donthu et al., 2021). Within the current study, the distribution of research activity is more widespread, and direct institutional and authorial connections are comparatively sparse. Hence, it is more accurate to call it geographically distributed and collaboratively fragmented. The networks indicate that much of the research is still carried out in clusters of relatively small and loosely connected groups, despite the fact that there is some international participation.

This organizational pattern does not require that one judge that this is evidence of a conceptual fragmentation. These bibliometric data do not support and do not allow one to make a causal claim to the effect that only with limited cooperation, there are theoretical differences. What they do demonstrate, however, is that there has been growth without consolidation in the research relationship. This distinction is highly relevant in the context of the intellectual structure analyzed in Section 4.2, since researchers can be organizationally dispersed and have a highly interconnected intellectual base. At the same time, it is possible for organizational fragmentation and intellectual cohesion to exist in the same field.

4.2 Intellectual Cohesion and Conceptual Plurality

The cited-author and cited-journal networks indicate a fairly coherent intellectual foundation, but the keyword structure indicates that this has not led to a coherent conceptualization of affective meaning. The question is thus not whether they share a common scholarship, but what it is that the various traditions consider as the object toward which affective meanings can be directed and what evidence they produce to establish it as such.

These traditions vary exactly in their boundaries of thought. In the Appraisal framework affect is a component of Attitude, and is separate from Judgement and Appreciation (Martin & White, 2005), while Hunston and Thompson (2000) view evaluation more broadly, including attitudes, feelings, values and interpersonal positioning. Biber and Finegan (1989) tackle affect as stance, which is related to the lexico-grammatical means of expressing attitudes, feelings, judgements and commitments. Socially situated and interactional approaches take the analysis of the object one step further: Ochs and Schieffelin (1989) position affect within phonological, grammatical, lexical, discourse and sociocultural resources, while Du Bois (2007) sees stance in terms of evaluation, positioning and alignment. Thus, a common analytical unit is not the one that is used to identify affective meaning in these traditions.

This is especially manifest in Bednarek's work. Bednarek (2009a) demonstrates that the notions of evaluation, affect, appraisal and emotion are not the same although there can be a certain degree of overlap and Bednarek (2009b) clarifies the difference between attitudinal lexis and evaluative targets and proposes the concept of covert affect for meaning that is not made transparent by overt attitudinal vocabulary. These distinctions indicate that (affective) meaning identification relies on judgments pertaining to the source of evaluation, to the object of evaluation and to the explicitness of the affective meaning coded in the text.

The plurality exposed through the bibliometric network is thus not only in terms of terminology. The traditions represented vary with respect to affective meaning, unit of analysis and evidence needed for interpretation. Some foreground lexical and grammatical realization, some organize affect within a range of evaluative systems, and interactional and socially situated approaches focus on positioning, alignment, discourse and sociocultural context. Thus, similar labels may be used to refer to different types of analysis, and similar phenomena may be analyzed under different labels.

That is why there has not been a conceptual unification in spite of the intellectual connectivity. That these traditions both contribute to the same scholarly conversations is evident from co-citation, but it is not a sign of the reconciliation of analytical categories. The point is reiterated by the use of the keyword network: affective stance/evaluative meaning, appraisal/attitudinal meaning, emotion/emotive meaning and stance are not conflated with a single dominant construct. It can thus be better described as a conceptually plural space of thinking and learning.

This discovery also helps to explain the contribution of the present study to the previous bibliometric studies. Phan (2025) proposes a mapping for diversification within the relatively limited scope of Appraisal Theory, while Liu et al. (2026) map linguistic evaluation as a wider field comprising of multiple traditions. The present affect-centred analysis falls within these levels: It demonstrates that affective meaning research is not only Appraisal research applied at these levels but also it is not a theoretically homogeneous field. This means that the issue is one of comparability, not theoretical inadequacy, as the resulting problem is one of comparability. There are already several well-developed frameworks in the field, however, it is not clear how findings would be compared when the frameworks vary in terms of what they consider affective meaning, the units they analyze, and the contextual evidence they require.

The main significance is that there is no need to develop a new overarching taxonomy for future research but the existing constructs can be better linked. Research must indicate if

affect, affective stance, evaluation, attitude, emotive meaning and appraisal are at the same, partially overlapping or different analytical levels. This clarification would not remove from the table the theoretical plurality, but rather render this plurality explicitly comparable, so that findings in one tradition can be built up in a more coherent fashion.

4.3 Thematic Diversification and Analytical Expansion

The content structure with the theme indicates that the study on affective meaning is not only enriched with new topics but also that the object of analysis in the empirical studies has expanded. Previous studies have focused on the lexical and grammatical manifestations of affect and stance (Biber & Finegan, 1989), but more recent studies have begun to look at more frequent evaluative and phraseological patterning (Partington, 2004; Bednarek, 2008), interactional positioning and alignment (Du Bois, 2007), and multimodal realization through visual and embodied resources (Feng & O'Halloran, 2012).

One aspect of this expansion can be seen in corpus-oriented research. The research on semantic prosody and recurrent phraseological patterning reveals that the evaluative meaning can be revealed in the repetition of lexical environment not the individual evaluative words (Partington, 2004; Bednarek, 2008). This has the effect of moving the field of analysis from the individual expression towards patterns of distributed discourse. However, the only criterion for evaluative function is recurrence. As Hunston (2004) demonstrates, corpus evaluation can also be implicit and context-dependent.

Interactional and multimodal are extensions of the object in different directions. Evaluation, positioning and alignment are the concepts of Du Bois (2007) that conceptualize stance, where interpersonal relations are not just the background of the phenomenon being analyzed, but are part of it. Feng and O'Halloran (2012), on the other hand, demonstrate that emotive meaning can be conveyed through facial expression, touch, body orientation and other visual means. The point becomes when affective meaning is allowed to be distributed through interaction and semiotic mode, the unit of analysis is more complex: not only what form(s) of language make up affective expression, but how the combined resources of verbal, sequential, and non-verbal expression are used to create an affective position.

The two developments are a common methodological problem. Corpus, interactional and multimodal approaches are not simply alternative ways of working on the same object but are different ways of highlighting different evidence. Corpus analysis uncovers recurrent distributional patterns, interactional analysis explores positioning and alignment in sequential context, and multimodal analysis maps out the travel of meaning across the semiotic resources. The field has thus grown in the methodological richness without being necessarily integrated in the methodological level. A corpus pattern can signal a recurring evaluative stance but it can't, alone, determine the interpersonal function of that stance. Interactional analysis can account for the positioning of a pattern in a particular sequence but not for the wider distribution of that pattern. And multimodal analysis can reconstruct meaning across the modes but can make the delimitation of the analytical unit problematic. The question is thus not which is the better method, but rather how various types of evidence can help to identify and interpret affective meaning.

This is significant for the cross-cultural, second language and translation clusters. These show an increase in the focus on affective and evaluative meaning across languages and communicative settings, but they are still rather specialized in the overall network. This is significant because important frameworks within the field have been created to a significant extent through English-language description, such as stance research (Biber & Finegan, 1989) and Appraisal Theory (Martin & White, 2005). Research on cross-linguistic phenomena should thus not only ask the question of whether the categories already existing for the description of the patterns found in one language can simply be transferred to the description of patterns found in another language, but also the question of whether differences in evaluation that are culturally conventionalized, interaction, pragmatics, grammar, and lexicalization necessitate a reconsideration of the categories or the units of analysis.

Thematic diversification identified in these instances thus represents a more fundamental shift: affective meaning is no longer viewed as a contained linguistic phenomenon, but rather as a meaning potential that is activated through patterns, interaction, context, and many semiotic resources.

4.4 Cumulative Thematic Diversification

The temporal results show that affective meaning research has been an accumulating research rather than replacing. Previous issues with language and discourse are still prominent, and newer issues of corpus-based evaluative patterning (Partington, 2004; Bednarek, 2008), interactional stance and positioning (Du Bois, 2007) and multimodal meaning making (Feng & O'Halloran, 2012) and increasingly varied uses of Appraisal and evaluative analysis (Li et al., 2020; Phan, 2025) are still evident. Subsequent approaches have, in turn, expanded the analytical tools available to the field, and not replaced the earlier linguistic and discourse-based foundations.

This is more aptly referred to as cumulative diversification. In addition to the previous orientations, new theories, methods and research contexts have been added to the existing base. This interpretation aligns with the previous bibliometric studies that revealed diversification in the fields of evaluation, appraisal, and stance (Li et al., 2020; Liu et al., 2026) and the theory of Appraisal itself (Phan, 2025). The present research extends this to the fact that when affect centered meaning is central to the analytical focus, various aspects of the threads are not necessarily all aligned towards a single dominant strand.

This interpretation is supported by the fact that no statistically significant keyword bursts have been detected; however, this should be interpreted with caution. It merely indicates that no single word displayed a strong and lasting rise according to given criteria; it is not a proof of the lack of conceptual change. Evidence of cumulative diversification includes the presence of earlier keywords, the different mean years of the clusters, and the fact that several intellectual traditions coexist.

This is important because it's not about swapping out keywords, it's about a thematic shift. A new key word does not necessarily indicate a new paradigm; an old theoretical orientation can continue to be important even with a new key word. The temporal structure thus argues against a successional model of field development and is consistent with a model of layering and differentiation of fields.

Combined with Sections 4.1–4.3, this pattern illuminates the present state of the field of affective meaning research. Geographically, the field has grown without parallel collaborative consolidation, conceptually without parallel unification, and methodologically without complete integration of the various types of evidence that are used. Therefore, the development of it has been characterized by an increase of additions instead of a decrease of convergences.

The issue for the future is not to abolish this theoretical and methodological pluralism, as various approaches can be used to grasp different facets of affective meaning, but to clarify and render this difference explicit and comparable. Research should help to shed light on the constructs that can be used at which analytical levels, what kind of evidence is needed for each level and what can be done to relate the findings from lexical, corpus, interactional, contextual and multimodal analysis. It is the second phase of development that should now concentrate not on the creation of more labels but on the establishment of more explicit links between the analytical tools which the field already has.

5. Conclusion

This study aimed to provide a mapping of the evolution, intellectual structure and thematic evolution of affective meaning research through a CiteSpace-based bibliometric analysis of 154 WoS-indexed papers published between 1994 and 2025. The results indicate that the field has grown significantly, especially since 2018, and that it is institutionally and authorially diffuse. Meanwhile, the cited-author network, and cited-journal network, reveal a common intellectual background in systemic functional linguistics, Appraisal, stance and evaluation studies, corpus linguistics, pragmatics, and interactional approaches. The field is therefore best characterized as intellectually connected but conceptually plural rather than unified around a single framework.

The thematic and temporal analyses further show that affective meaning research has developed through cumulative diversification rather than paradigm replacement. Earlier concerns with language and discourse have continued alongside corpus-based, interactional, multimodal, cross-cultural, second-language, and context-specific research. This diversification has broadened the empirical and methodological scope of the field, but it has also made the relationships among affect, affective stance, evaluation, attitude, emotive meaning, and appraisal increasingly important. Future research should therefore prioritize conceptual comparison and integration, while combining corpus-scale analysis with contextual, cross-linguistic, and multimodal interpretation.

These conclusions should be read within the limits of the dataset. The study includes only English-language articles and reviews indexed in the Web of Science Core Collection, and therefore represents the WoS-visible literature rather than the entirety of affective meaning research. Bibliometric networks also identify structural relationships rather than conceptual equivalence, so the patterns reported here should be interpreted together with close examination of the underlying literature.

Ethics Approval and Consent to Participate

Not applicable. This bibliometric review used publicly available bibliographic metadata and did not involve human participants or identifiable personal data.

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Conflict of Interest

The authors declare no conflicts of interest.

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