Image Schemas As Epistemic Feelings: The Shift from Cognitive to Affective Semantics

David Romand

IMAGE SCHEMAS AS EPISTEMIC FEELINGS: THE SHIFT FROM COGNITIVE TO AFFECTIVE SEMANTICS

David Romand [1]

[1] *Centre Gilles Gaston Granger, Aix-Marseille University, Maison de la Recherche, 29, avenue Robert Schuman, 13621 Aix-en-Provence, France*

Abstract

The present article aims to revisit the concept of image schemas, as it has been traditionally defined in cognitive semantics, in light of the notion of epistemic feeling. I advocate the view that epistemic feelings – that is, affective states that express a definite form of cognizance – are good candidates for psychologically underpinning image-schematic structures and explaining the semantic processes in which they are involved, and I call for a paradigmatic shift from a "cognitive" to an "affective" – or, more exactly, "psychoaffective" – approach to linguistic meaning. After briefly presenting the notion of (psycho)affective semantics, I examine successively: (a) the idea that both image schemas and epistemic feelings are subjective and ubiquitous properties of the mind; (b) the experiential commonalities between image schemas and epistemic feelings as semantic factors (abstractness, typicality, epistemic immediacy, polar opposition); (c) the idea that epistemic feelings may be a unique means of psychologically grounding image schemas; (d) five significant types of epistemic feelings that may be involved in the making of image-schematic structures. The article proposes a new theoretical/epistemological perspective on image schemas and semantics, at the interface between linguistics, philosophy, psychology, and affective science.

Keywords [1]

Image schema, Epistemic feeling, Cognitive semantics, Affective semantics, Psycholinguistics, Semantic internalism.

1. INTRODUCTION

The expression "epistemic feelings" refers to all affective phenomena whose characteristic is to express a definite form of cognizance. An old topic of psychology and philosophy ([1]; [2]), epistemic feelings appear today as a widely recognized class of mental states whose role has been highlighted in a great variety of psychological functions, including language ([3]; [4]; [5]). The link between epistemic feelings and semantic processes remains insufficiently studied on the whole. Yet there seem to be surprisingly many phenomenological and functional commonalities between epistemic feelings and image schemas, as they have been theorized in cognitive semantics since the 1980s. This article is the first to address the question of the psychoaffective foundations of image schemas, my intention, more specifically, being to demonstrate that image-schematic structures consist of special arrangements of epistemic feelings, and that the latter are the ultimate psychological entities responsible for linguistic meaning. Notwithstanding the introduction, the present article is divided into six sections. In Section 2, I begin with a short discussion of the (psycho)affective approach to semantics: I show that the issue of the involvement of affective states in semantic processes, while being almost completely disregarded today, was tackled systematically in the early 20th century by the Austrian philosopher Heinrich Gomperz ([6]: 54-293), who intended to rebuild both conceptual and grammatical meaning in light of the notion of epistemic feeling. In the four subsequent sections, I raise a series of arguments in favor of the hypothesis that epistemic feelings underpin image schemas

[1]The Seventh Image Schema Day (ISD7), September 2, 2023, Rhodes, Greece.
EMAIL: david_romand@hotmail.fr

and are likely to psychologically explain their semantic functions. I first show that, just like image schemas, epistemic feelings have a subjective character and are ubiquitous phenomena of conscious life (Section 3). Then, I highlight that epistemic feelings share the same chief experiential properties as images schemas, namely abstractness, typicality, epistemic immediacy, and polar opposition, which make them good candidates for being the constituent elements of linguistic meaning (Section 4). Finally, I discuss the foundational role of epistemic feelings, by showing that they are likely to provide image schemas with a stable psychological basis (Section 5), and by studying five significant types of epistemic feelings that may be involved in the making of image-schematic structures (Section 6). I conclude my article (Section 7) by insisting on the benefit, for the theorists of image schemas, of shifting from a cognitive to a (psycho)affective paradigm of semantics.

2. THE (PSYCHO)AFFECTIVE APPROACH TO SEMANTICS

Today, the issue of emotions, feelings, moods and cognate mental states arouses considerable interest in all fields of the study of language, and semantics is far from immune to the "affective" or "emotional" turn that occurred a few decades ago in language sciences ([7]). In current studies on language and affectivity, "emotion," "feeling," and related expressions are almost always taken in their ordinary, narrow sense. Characteristically, theorists of language are interested in affective states as the carriers of a pleasurable/displeasurable experience, and not as expressing, *per se*, a definite form of cognizance. The fact is that the question of epistemic feelings has been almost entirely disregarded by current theorists of language in general and semanticists in particular. Investigations on the relationships between semantic knowledge and epistemic feelings prove to be extremely scarce and unsystematic (nevertheless, see: [8]; [9]; [10]), and the question of how this category of affective state may be involved in the making of linguistic meaning is a blind spot in current semantic research.

In the early 20th century, the issue of the place and role of epistemic feelings in semantic processes was addressed and investigated at length by Heinrich Gomperz (1873-1942) within the framework of his so-called semasiology ([6]: 54-293). In this remarkable contribution to the psychological foundations of semantics, Gomperz advocated the provocative view that, whether conceptual or grammatical, linguistic meaning has essentially to do with the manifestation of affective states, more specifically, with the manifestation of cognitively significant feelings he referred to as "intellectual feelings" *(intellektuelle Gefühle)*. Conceptual meaning, he explained, roots in a definite arrangement of "material logical feelings" *(logische Materialgefühle)*, the "typical" affective qualities that determine the "statement content" *(Aussageinhalt)*, that is, the abstract and generic sense *(Sinn)* of words (see Figure 1). By being associated with both the "statement substrate" *(Aussagegrundlage)* (the representation-based mental images that specify conceptual meaning) and the "statement sound" *(Aussagelaut)* (the perceptual elements that constitute the signifier), material logical feelings contribute to making words meaningful. According to Gomperz, grammatical meaning, for its part, depends on "formal logical feelings" *(logische Formalgefühle)*, the "individual" (non-typical) affective qualities that determine the semantic value of connectors and morphological features. By being added to the material logical feelings that build the statement contents, formal logical feelings have the function of structuring propositional statements as consistent semantic wholes. Gomperz's semasiology remains a unique example of a radical "affective" – or, more exactly, "psychoaffective" – approach to semantics ([2]; [11]; [12]).

[insert Fig. 1 about here}

Gomperz's feeling-based model of semantics, in spite of its sophistication and probably because it was too innovative within the context of the time, had no direct posterity. The fact remains, more than one century later, that Gomperzian semasiology assumes a new importance in light of the resurgence of interest in affectivity in current language sciences ([2]; [11]; [12]). In a recent article [12], I briefly highlighted the commonalities between the general theoretical framework established by Gomperz and the research program on image schemas, suggesting that the former may serve as a starting point for psychologically reassessing the latter.

3. IMAGE SCHEMAS AND EPISTEMIC FEELINGS: TWO CHARACTERISTICALLY SUBJECTIVE AND UBIQUITOUS COMPONENTS OF THE MIND

The rise of cognitive semantics has famously made it possible to reinstate the place of subjectivity in language sciences. This point has been made particularly clear by two pioneering theorists of image schemas, Mark Johnson and Leonard Talmy. In *The Body in the Mind*, Johnson claims that, as "a non-objectivist account of meaning," cognitive semantics methodologically partakes in a "descriptive" or "empirical phenomenology" ([13]: xxxviii) that aims to highlight the "experiential structures of meaning." In this respect, he insists that semantics should have to do with linguistic meaning as it effectively occurs in the individual mind and that it has the property of being intentional – intentionality, he reminds us, being "the capacity of a mental state or of a representation of some kind […] to be about, or directed at, some dimension or aspect of one's experience" ([13]: 177). Talmy, for his part, speaks of cognitive semantics as "a branch of phenomenology, specifically, the phenomenology of conceptual content and its structure in language" ([14]: 4) and points out that, as the focus of introspection, "meaning is located in conscious experience" ([14]: 5-6). The notion of image schema is at the core of this internalist approach to semantics: as the very experiential structures of meaning, image schemas are "private, individual phenomena," as Jordan Zlatev emphasizes ([15]: 332).[2] They are – to use Johnson's widely popularized expressions – "experiential qualities" or "experiential gestalts" that, although non-sensory by nature, always have a definite subjective significance. Here we find a distinctive mark that is also that of epistemic feelings, which, as a definite category of affective states, are characteristically subjective mental properties ([19]; [4]; [20]). Significantly, cognitive semanticists usually describe image schemas as the fact of "feeling" something (e.g. [13]; [21]; [22]). In this respect, Johnson ([13], [21]) speaks of "felt-sense" or "felt experience"; more specifically, he refers to image schemas as "the felt, qualitative aspects of embodied human understanding" or as "the felt qualities of our experience, understanding and thought" ([13]: 15 and 31). Without explicitly equating them with genuine feelings, many theorists admit that, phenomenologically, image schemas can be adequately described in affective terms.

A further general experiential characteristic of image schemas is the fact of being ubiquitous mental properties. As Johnson reminds us, according to cognitive linguistics, "[…] 'linguistic meaning' is only an instance or specification of meaning(fulness) in general" ([13]: 176). This implies that image schemas, as the elemental bearers of linguistic meaning, far from being restricted to the linguistic/semantic realm, are properties inherent to conscious life as a whole. They are commonly said to be "cross-linguistic" and "cross-modal" experiential factors. Not only are they common to both cognition and perception ([14]), but they are encountered in all forms of experience, whether linguistic, visual, motor, kinesthetic, or some other form ([23]).[3] They are – as Johnson says –

[2]As Peter Gärdenfors reminds us ([16]: 57), cognitive semantics, as theorized in the 1980s by Johnson, Lakoff, Langacker and others, is the approach according to which "*meanings are in the head*" and whose objective is "a mapping from the expressions of the language to some cognitive entities" – a view that, he highlights, should be contrasted with "the realistic approach to semantics," according to which "the meaning of an expression is something out there *in the world*." In the preface of *The Body in the Mind* ([13]: ix-xiii and xxi-xxxviii), Johnson conceives cognitive semantics as opposed to "the objectivist theories of meaning and rationality," an expression that encompasses – although without using the expressions – both the realist and rationalist approaches to meaning. Here he stands against both the view that semantic processes may be the immediate reflection of an external reality independent of the speaking subject, and the view that semantic processes, by nature, may be logical-rational phenomena depending on a *sui generis* mental function, distinct from the other manifestations of mental life. In contrast to this "objectivist" stance, Johnson explicitly advocates the view that linguistic meaning makes sense as long as it is effectively experienced by the speaking subject and roots in the ordinary activity of his or her own inner life. Nevertheless, he would prove to be more ambiguous his latter contributions, as is well shown by his writings with Lakoff ([17]; [18]), in which the two authors endorse a stance they call "embodied realism." In their 2002 article "Why cognitive linguistics requires embodied realism" ([18]): 248), Johnson and Lakoff claim that, in light of the embodied-realist view, "[m]eaning comes, not just from 'internal' structures of the organism (the 'subject'), not solely from 'external' inputs (the 'objects'), but rather from recurring patterns of engagement between organism and environment." This quotation exemplifies the tendency of schema theorists to move away from the strict mentalist and internalist approach that seemed to be prevalent in the founding years of cognitive semantics. I thank Jean-Michel Fortis for having encouraged me to discuss this important epistemological issue.

[3]Since Johnson ([13]), theorists have also agreed to consider image schemas as taking part in the making of emotional or affectives states, and, conversely, emotions or affects as being an essential experiential accompaniment of image schematic structures (for review see: [15]: 321-323; [24]: 303). At first sight, this may be a strong argument against the hypothesis that images schemas are equatable with psychoaffective processes. Nevertheless, it should be kept in mind that, in such a case, the theorists of image schemas speak of "emotion" or "affect" in the ordinary sense of the term: they refer to pleasurable and displeasurable mental states, not to affective or emotional phenomena carrying a definite form of cognizance. As far as I know, they have thus far totally overlooked the issue of epistemic feelings. The fact is that the existing literature on the link between image schemas and affectivity has only little to do with the views discussed in the

"pervasive" (cross-experiential) mental properties ([13]). Here again, we find a distinctive mark that also belongs to epistemic feelings. Epistemic feelings, whatever their specific nature, are found not only in cognitive but also in perceptual, conative, imaginative, mnemonic, and attentional processes ([3]; [5]; [19]).

I identified above some general commonalities between image schemas and epistemic feelings, suggesting that that the two may share the same psychological basis, however I have not yet decisively demonstrated that the former should be construed in light of the latter. Let me now review more accurate arguments in favor of the psychoaffective nature of image schemas, by showing that experiential properties commonly ascribed to them fit nicely with those of epistemic feelings.

4. FOUR BASIC EXPERIENTIAL PROPERTIES COMMON TO IMAGE SCHEMAS AND EPISTEMIC FEELINGS

4.1. ABSTRACTNESS

The presumed basic components of linguistic meaning, image schemas are commonly regarded as *abstract* experiential properties (e.g.: [13]; [15]; [23]; [25]; [26]). Theorists insist that, although not concepts properly speaking, they are clearly distinct from "mental pictures" (Johnson), that is, from ideated representational contents. As non-imagistic, non-iconic, non-eidetic entities, image schemas do not "depict" anything and do not relate to any definite "palpable" token of conscious life. Rather, they correspond to the subjective expression of a definite relational, formal, or organizational dimension of experience. Abstractness, as defined in the case of image schemas, proves to be a typical experiential signature of epistemic feelings. As non-sensory mental states, epistemic feelings enable us to know something about representational contents and how they relate with each other, by providing us with an information that is not directly contained in them. For instance, when having the feeling that an object or a process is "familiar," "certain," or "objective" (to take classic examples of epistemic feelings), we enrich our cognizance of the object or process by construing it on the basis of an abstract experiential quality of its own kind.

4.2. TYPICALITY

A correlative dimension of their abstractness, *typicality* is a further chief experiential characteristic of image schemas that make them suitable for underpinning linguistic meaning. As Hedblom et al. ([27]: 280) emphasize, "image schemas are abstract generalizations of events […]." As specified long ago by Johnson, they are not only more abstract, but also more "general" than mental pictures, and they should be described as "recurring structures of, or in, our perceptual interactions, bodily experiences, and cognitive operations" ([13]: 79). Pecher et al. ([28]: 241) remind us that "image schemas reflect commonalities between distinct, recurrent experiences in different domains and modalities." Here the issue raised by theorists is that, by their very nature and despite their relative elementariness, image schemas tell us something generic about things or events: they consist of distinguishing marks that, unlike percepts and "mental pictures," remain unchanged and serve to characterize them. By admitting that image schemas are, from the experiential point of view, typical, they ascribe to them a property that, again, proves to be distinctive of epistemic feelings. When apprehending an object or an event as, say, "familiar," "certain," or "objective," we characteristically have a feeling that informs us, not about the intrinsic peculiarities of the object or the event, but about its general way of being or occurring. In other words, we experience an affective quality that, by characterizing representational contents (or their interrelations), allows us to know something general about them, beyond their mere sensory determinations. As abstract, non-sensory constituent elements of consciousness, epistemic feelings appear as a way of typifying its concrete, sensory constituent elements.

present article. Here too, I am grateful to Jean-Michel Fortis for having drawn my attention to this important theoretical point.

4.3. EPISTEMIC IMMEDIACY

Image schemas, as the presumptive constituent elements of linguistic meaning, are by definition conditions of possibility of propositional knowledge. Nevertheless, this does not imply that, as epistemic factors, they are, per se, propositional. This point was made clear a long time ago by Johnson who, in *The Body in the Mind*, spoke of image schemas as "preconceptual and nonpropositional structures of experience" ([13]: xvi) – a view that is now widely admitted in the literature ([22]). While being the carriers of an abstract knowledge, image schemas do not need to be involved in inferential or discursive processes to become epistemically significant: their epistemic significance depends only on their effective presence in the mind at a given moment. As Johnson emphasizes, "image-schematic structures are meaningful for us in the most immediate and automatic way" ([13]: 209; see also: [29]; [30]). Although, to the best of my knowledge, the expression is not encountered in the literature, image schemas can be said to be characterized by their *epistemic immediacy*. Here, once again, the theorists of image schemas appeal *de facto* to an experiential property typical of epistemic feelings. As affective mental states, epistemic feelings are evaluative properties whose function is to spontaneously bring an abstract form of cognizance (familiarity, novelty, certainty, doubt, expectation, surprise, etc.) to representational contents (or their interrelations): by being added to them in consciousness, they instantaneously and irreflectively "color" them in a definite epistemic way. The link between epistemic immediacy and affectivity has been explored at length in the case of intuitive knowledge and metacognitive processes ([31]; [32]; [8]; [9]; [10]), and there is no reason not to extend this analysis to the question of the involvement of epistemic feelings in semantics.

4.4. POLAR OPPOSITION

Finally, it is worth highlighting a fourth experiential characteristic that image schemas share with epistemic feelings: the fact that the various kinds of image-schematic structures identified by cognitive semanticists tend to comply with the principle of *polar opposition*, that is, tend to be organized according to pairs of antagonistic phenomenological/epistemic qualities. Here we are dealing with a property that, as far as I know, unlike the previous three, has not been formally recognized by the theorists of image schemas. The fact remains that the notion of polar opposition pervades a great deal of the discourse on image schemas and that the question of the polarity of some image-schematic structures has been the focus of much theoretical, but also empirical interest (e.g. [13]; [14]; [22]). Look no further than the various typologies that have been proposed since the late 1980s (e.g. [13]: 126; [33]: 267; [34]: 97-98; [35]: 3, 12; [23]: 15; [14]; [36]: 2-3) to notice that, as a rule, although not systematically, image schemas are conceived as being organized as pairs of contrastive entities. For instance, when analyzing Beate Hampe's typology ([36]: 2-3), which has the merit of being particularly synoptic and comprehensive, one must admit that the vast majority of the schemas she identifies are either directly grouped as opposite qualities (CONTAINMENT/CONTAINER, PART-WHOLE, CENTER-PERIPHERY, NEAR-FAR, FULL-EMPTY, UP-DOWN, FRONT-BACK), or *de facto* contrasted two by two (ENABLEMENT vs. BLOCKADE, ATTRACTION vs. COMPULSION, MATCHING vs. SPLITTING, ANIMATE MOTION vs. INANIMATE MOTION, etc.). Regarding the study of the polar character of image-schematic structures, special mention should be made of orientational schemas (UP-DOWN, LEFT-RIGHT, FRONT-BACK, etc.), which have become the topic of many experimental investigations in the last few years (e.g.: [37]; [38]; [28]; [30]). In any event, the notion of polar opposition, as it is encountered in image schema studies, is clearly reminiscent of that which prevails in the theory of epistemic feelings. As a definite category of affective states, epistemic feelings have, in all likelihood, the property of occurring in consciousness according to antagonistic experiential "directions": this contrastive directionality differs from that observed in "ordinary" affective states, in that it does not consist of an opposition between pleasantness and unpleasantness ("valence"), but between cognitively meaningful qualities, such as – to name a few – familiarity vs. novelty, certainty vs. doubt, objectivity vs. subjectivity. Here we are dealing with a distinguishing phenomenological feature of epistemic feelings that has been highlighted for a long time by psychologists and philosophers ([19]),

and that may be regarded as a signature of their functional implication in conscious life, notably in linguistic consciousness ([10]).

5. EPISTEMIC FEELINGS: A PLAUSIBLE STABLE PSYCHOLOGICAL BASIS FOR IMAGE SCHEMAS

For almost four decades, image schemas have been recurrently referred to as "gestalts," "experiential gestalts," "conceptual gestalts," "gestalt structures," "recurrent/recurring patterns of embodied experience," "fleshless skeletons," "invariant topological structures," "structures of sensory-motor experience," etc. Although these expressions are useful for characterizing image schemas from the phenomenological and functional point of view, they tell us nothing about what image schemas consist of in mentalistic terms, that is, about the kinds of mental states they are supposed to correspond to. As Kranjec and Chatterjee wrote in 2010,"[…] schemas often seem to be defined in terms of what they are not, rather than what they are," insisting that "the idea of schema remains a theoretical construct" ([39]: 3, 5). Thirteen years later, this assumption remains true. To the best of my knowledge, cognitive semanticists have been unable to specify the very psychological basis of image schemas, and recent experimental advances in the field, which have striven to prove their existence (e.g. [28]; [30]; [38]), have only been of little help in this respect. So far, cognitive semantics have made use of theoretically useful but ontologically still-undetermined entities. This ontological indeterminacy is a major weakness of the theory of image schemas as it stands, and the question of the psychological nature of image-schematic structures is a burning issue. In light of the arguments discussed in the two previous sections, it seems natural to consider epistemic feelings as the mental entities that underpin image-schematic structures. Not only do epistemic feelings appear as good candidates for psychologically grounding image schemas, but, in all likelihood, we are dealing with the only category of mental states that is able to play this role.

The fact of ascribing image schemas to the manifestation of epistemic feelings is likely to clarify the question of their psychological nature both in general and in particular. First, construing image schemas in terms of epistemic feelings offers the possibility of referring them to a well-known category of really existing mental states, namely affective phenomena, of which epistemic feelings are a subcategory. The existence of epistemic feelings, which has been recognized for a long time ([1]; [2]), is unquestioned today, and their characterization has been the topic of considerable theoretical, but also empirical investigations ([3]; [5]). Second, ascribing image schemas to the manifestation of epistemic feelings also means psychologically explaining them by relating them to a great variety of well-characterized experiential qualities, whose individual existence, when not formally proved, is largely consensual. This opens the way to systematically revisiting image schemas and their semantic significance in light of definite arrangements of specific affective entities.[4]

6. THE PSYCHOAFFECTIVE FOUNDATIONS OF IMAGE-SCHEMATIC STRUCTURES: THE POSSIBLE ROLE OF FIVE TYPES OF EPISTEMIC FEELINGS

[4]By assuming that image-schematic structures are underpinned by epistemic feelings, we open the opportunity to construe them on the basis of elementary experiential qualities that can combine with each other, both instantaneously and successively, while going through various degrees of intensity. Here, in addition to explaining the variety and complexity of image schemas, we may be able to single out the authentic psychological "primitives" they ultimately consist of. A further argument in favor of the feeling-based approach is that epistemic feelings are well-suited to clarify the question of the relationships between image schemas and embodiment. From the beginning, embodiment has been a core aspect of the image schema theory ([13]; [22]). In the mentalistic perspective that is supposed to be that of cognitive semantics, linguistic meaning partly depends on the individual's capacity to *feel* his or her corporeal states and his or her body's way of interacting with the environment. However, image schema theorists prove to be ambiguous: they often endorse a more or less overt externalist conception of semantics, by claiming that linguistic meaning can be grounded in *material* and *behavioral* bodily properties (e.g.: [17]; [22]). By referring image schemas to a variety of affective categories such a those expounded in the next section, we can hope to account for all aspects of bodily experience in the language of mentalism. Moreover, in the wake of the previous argument, the feeling-based approach is likely to solve a further epistemological problem inherent in image schema studies. Here I am thinking of that tendency that consists of *reifying* image schemas by envisioning them as "concrete" entities belonging to the physical world rather than as mental properties. This tendency is well-exemplified by the massive use of diagrams made by image schema theorists. Of note, in the case of force-dynamic diagrams, image schemas are *de facto* identified with objects and events of naïve physics (e.g.: [14]). The fact of ascribing image schematic structures to definite sets of affective qualities may allow us to avoid this difficulty, by giving us the possibility to entirely characterize them in mentalistic terms.

In this section, I identify five major types of epistemic feelings and show why they may be particularly relevant with a view to psychologically reanalyzing image-schematic structures. It should be kept in mind that the list proposed here is by no means exhaustive and that it displays a number of *possible* psychoaffective factors of image schemas and their semantic functionalities. My objective is not to argue that this or that image-schematic structure can be simply replaced with this or that type of feeling, but rather to suggest that, in synergy with other types of feelings, a given type of feeling may be instrumental in determining key dimensions of image-schematic categories or systems. The assumption that image schemas can be revisited in light of epistemic feelings does not simply involve grounding them psychologically, but also *explaining* them on the basis of a set of definite affective qualities that can be dynamically selected and arranged with each other. This also implies not sticking with image-schematic categories and systems as they have been traditionally delineated in the literature, but *reshuffling* them. The aim of the psychoaffective approach to semantics proposed here is to highlight the *actual* psychological entities and structures that underpin the manifestation of linguistic meaning, at various levels of complexity.

6.1. SPACE-RELATED FEELINGS

The view that there are epistemic feelings specifically involved in the making of spatial experience was overtly contemplated by German scholars in the second half of the 19th century. This was the case of Ewald Hering ([40]: 390-295, 317-322, 324-327, 335, 337-338, 341-346), who regarded space perception as depending on a threefold system of "basic" or "simple" spatial feelings *(räumliche Grundgefühle/einfache Raumgefühle)*, which express respectively a "height," a "width," and a "depth" value – three kinds of "affective qualities" that can be either positive or negative. For instance, Hering explains, the feeling of depth *(Tiefengefühl)* can be experienced positively as a feeling of remoteness *(Ferngefühl)* and negatively as a feeling of closeness *(Nahgefühl)*. Alois Riehl also regarded space perception as depending on a threefold system of affective states. According to him, we spatialize tactile sensations on the basis of three kinds of "feelings of direction" *(Richtungsgefühle)*, namely (a) "the feelings of the pull of gravity," (b) "the feelings of the intended or performed lateral movements," and (c) "the feelings peculiar to the intended or effectively performed forward or backward movements" ([41]: 143, my translation). Space-related feelings, as theorized by Hering and Riehl, directly appeal to the above-mentioned notion of "orientational schema" ([37]; [36]; [28]; [30]). Here, more generally speaking, we are dealing with a psychoaffective concept that is likely to pave the way to revisiting the much-discussed issue of spatial schemas and the many semantic processes in which they are supposed to be involved.

6.2. TIME-RELATED FEELINGS

The assumption that the experience of the past and the experience of the future depend each on a definite kind of epistemic feeling is an old idea ([42]: 39; [43]: 162-163) that has recently been revived in the field of memory studies. A growing number of experimental results strongly suggest that the typical phenomenologies associated with remembering and prospection have to do with the manifestation of the two opposed feelings of, respectively, pastness and futureness, and that these two affective states are instrumental in mental time travel – the subject's capacity to move between the past, the present and future ([44]; [45]; [46]). Importantly, it has been shown that, according to their way of being arranged in consciousness and their variations in intensity, the feeling of pastness and the feeling of futureness are likely to give rise to many temporal nuances, such as the experience of date and the experience of duration ([44]). Taken together, these two feelings and their experiential derivatives, in other words, "time-related feelings," appear as natural candidates for accounting for all schematic structures underpinning temporal semantics. Nevertheless, their semantic role may not be limited to this image-schematic category. For instance, it can be hypothesized that, as a variant of the feeling of futureness, the feeling of expectation – which has been long discussed by psychologists and philosophers ([1]) – plays a role in force-dynamics and the semantics of causation ([14]).[5]

[5]In a recent neuroscience article, Stefavova et al. ([47]) explicitly addressed the question of the involvement of "anticipatory feelings" in language processes. Although their concept of anticipatory feeling is loosely related to that of epistemic feeling and that their neurolinguistic

6.3. AGENCY-RELATED FEELINGS

The study of affective states relating to one's way of acting experienced considerable development in the late 19th and early 20th centuries ([48]; [19]; [6]): psychologists and philosophers identified many kinds of agency-related feelings, such as the feelings of "effort," "strain," "striving," or "activity," and their experiential counterparts (feelings of resistance, relief, passivity, etc.), which they regarded as taking part in a great variety of psychological functions, including semantic processes ([6]). The interest for this kind of affective states, especially for the feeling of effort and its experiential variations, has been revived in current philosophy of mind ([49]; [50]). The phenomenology of agency-related feelings irresistibly echoes that of force-dynamic schemas ([14]), and they can legitimately be hypothesized to be involved in a great deal of their semantic fields of application.

6.4. OBJECTIVITY/SUBJECTIVITY-RELATED FEELINGS

The notion of "the feeling of objectivity" was a popular psychological and philosophical issue in the late 19th and early 20th centuries ([48]; [19]; [6]). By "feelings of objectivity," the scholars of that time referred to the affective states through which one spontaneously apprehends objects or events as something distinct from oneself, that is, as pertaining to the external world. This category of epistemic feeling was usually contrasted with "feelings of subjectivity," the affective states whose function is to make one experience objects or events as belonging or being related to oneself. Taken together, these two experientially opposite kinds of affective states were shown to take part in a great variety of psychological functions, including semantic processes ([6]). The recently emerged philosophical research program on "existential feelings" ([51) appears to be more or less closely related to that on the feelings of objectivity (and subjectivity). Whatever the adopted naming may be, objectivity/subjectivity-related feelings can be hypothesized to be involved – synergistically with the other here-described types of epistemic feelings – in the making of most of schematic structures. Here I am thinking of course of the schema OBJECT, but also of further classic image-schematic categories such as CONTAINMENT/CONTAINER, PATH/SOURCE-PATH-GOAL, PART-WHOLE – to mention only a few. Subjectivity-related feelings, considered in themselves and in their relation with objectivity-related feelings, may be of particular relevance for accounting for the two image-schematic systems Talmy calls "location of perspective point" and "location of attention" ([14]).

6.5. CERTAINTY/DOUBT-RELATED FEELINGS

An old psychological issue ([1]), the feeling of certainty and its "negative" counterpart, the feeling doubt (or uncertainty), were identified as an autonomous category of epistemic feelings by Richard Avenarius in the late 19th century. In his own parlance, Avenarius ([48]: 33) referred to the certainty/doubt-related feelings as "the secural" *(das Sekural)* (see also: [19]). These two kinds of feelings are widely documented in current literature (e.g. [3]; [4]; [5]; [52]), together with cognate affective states like the feeling of confidence, the feeling of error, the feeling of confusion. They also should be compared with the feeling of knowing ([20]), the feeling of rightness ([20]), and the feeling of truth ([53]: 173-194), three kinds of epistemic feelings that have been highlighted for being involved in language processes. Regarding their putative role in the making of image schemas, certainty/doubt-related feelings can be hypothesized to contribute – synergistically with the other above-discussed types of epistemic feelings – to all semantic expressions of modality and causality.

7. CONCLUDING REMARKS

The view that image schemas basically consist of a special class of affective states, namely epistemic feelings, may sound peculiar to many language theorists. Despite the recent emotional turn

analysis concerns emotion words only, this essay opens a promising prospect for the experimental and theoretical study of the relationships between time-related feelings and image schemas.

in language sciences, it is true that the old epistemological prejudice that affectivity, because it is a supposedly vague and purely subjective form of experience, would be unworthy of grounding propositional knowledge, is still largely prevalent in some quarters. The fact remains, in light of the arguments I strove to raise in the previous pages, the assumption that image schemas are feeling-based entities is far from being outrageous. Not only are there, as I have shown, good theoretical reasons to identify image-schematic structures with the manifestation of epistemic feelings, but, in the last analysis, this hypothesis may well be the only tenable one as long as we endorse an overtly mentalist, naturalist, and internalist approach to semantics. Here I propose to the theorists of image schemas to shift from a *cognitive* to an *affective* semantic paradigm, by embracing the apparently provocative view that definite affective qualities are the basic constituent elements of linguistic meaning. More exactly, what I stand for is a *psychoaffective approach to image schemas*, since, by reassessing them in light of the concept of epistemic feeling, my core objective is to provide them with a genuine and stable psychological basis.

ACKNOWLEDGMENTS

I would like to thank the two organizers of the Seventh Image Schema Day (ISD7), especially Maria Hedblom, for having given me the possibility of discussing the ideas expounded in the present article on the occasion of this event held in Rhodes on September 2023. I am also grateful to Jean-Michel Fortis for his insightful comments and advice regarding my text, and to the two anonymous reviewers who helped me improve a previous version of the manuscript.

REFERENCES

[1] D. Romand, Theodor Waitz's theory of feelings and the rise of affective sciences in the mid-19th Century, History of Psychology 18.4 (2015) 385-400.
[2] D. Romand, More on formal feeling/form-feeling in language sciences. Heinrich Gomperz's concept of "formal logical feeling" (*logisches Formalgefühl*) revisited, Histoire Epistémologie Langage 31.1 (2019) 131-157.
[3] S. Arango-Muñoz, K. Michaelian, Epistemic feelings, epistemic emotions: Review and introduction to the focus section, Philosophical Inquiries, 2.1 (2014) 97-122.
[4] A. Meylan, Epistemic emotions: A natural kind?, Philosophical Inquiries 2.1 (2014) 173-190.
[5] E. Dietrich, C. Fields, D. D. Hoffman, R. Prentner, Editorial: Epistemic feelings: Phenomenology, implementation, and role in cognition, Frontiers in Psychology, 11 (2020). doi.org/10.3389/fpsyg.2020.606046.
[6] H. Gomperz, Weltanschauungslehre. Ein Versuch die Hauptprobleme der allgemeinen theoretischen Philosophie geschichtlich zu entwickeln und sachlich zu bearbeiten, Band 2: Noologie, Erste Hälfte: Einleitung und Semasiologie, Diederichs, Jena and Leipzig, 1908.
[7] D. Dukes, K. Abrams, R. Adolphs, M. E. Ahmed, A. Beatty, et al., The rise of affectivism, Nature Human Behavior, 5.7 (2021) 816-820.
[8] A. M. Borghi, C. Fini, L. Tummolini, Abstract concepts and metacognition: Searching for meaning in self and others, in: M. D. Robinson, L. E. Thomas (Eds.), Hanbook of Embodied Psychology, Springer, Cham, 2021, pp. 197-220.
[9] A. Drożdżowicz, Experiences of understanding as epistemic feelings, Mind and Language 38.1 (2023) 274-295.
[10] D. Romand, Introduction: Linguistic feeling: Revisiting a concept between linguistics, philosophy of language, and affective science, in: D. Romand, M. Le Du (Eds.), Emotions, Metacognition, and the Intuition of Language Normativity. Theoretical, Epistemological, and Historical Perspectives on Linguistic Feeling, Cham, Palgrave Macmillan, 2023, pp. 1-72.
[11] D. Romand, La "sémasiologie" de Heinrich Gomperz. Un modèle psychoaffectif de la signification et du signe linguistiques, Histoire Epistémologie Langage, 44.1 (2022) 155-180.
[12] D. Romand, Epistemic feelings and the making of the statement as a meaningful linguistic structure. Revisiting Heinrich Gomperz's psychoaffective model of semantics and semiotics and its significance today, Acta Linguistica Hafnensia, 2023. DOI:10.1080/03740463.2023.2240685

[13] M. Johnson, The Body in the Mind. The Bodily Basis of Meaning, Imagination, and Reason, University of Chicago Press, Chicago, IL and London, 1987.
[14] L. Talmy, Toward a Cognitive Semantics, Vol. 1: Concept Structuring Systems, A Bradford Book, The MIT Press, Cambridge, MA and London, 2000.
[15] J. Zlatev, What is a schema? Bodily mimesis and the grouding of language, in: B. Hampe (Ed.), From Perception to Meaning: Image Schemas in Cognitive Linguistics, Mouton de Gruyter, Berlin and New York, 2005, pp. 313-342.
[16] P. Gärdenfors, Cognitive semantics ans image schemas with embodied forced, in: J. M. Krois, M. Rosengren, A. Steidele, D. Westerkamp (Eds.), Embodiment in Cognition and Culture, John Benjamins, Amsterdam and Philadelphia, 2007, pp. 57-76.
[17] G. Lakoff, M. Johnson, Philosophy in the Flesh. Basic Books, New York, 1999.
[18] M. Johnson, G. Lakoff, Why cognitive linguistics requires embodied realism, Cognitive Linguistics, 13.3 (2002) 243-263.
[19] T. Lipps, Vom Fühlen, Wollen und Denken. Eine psychologische Skizze, Barth, Leipzig, 1902.
[20] B. Mangan, What feeling is the "feeling of knowing"?, Consciousness and Cognition, 9.4 (2001) 538-544.
[21] M. Johnson, The philosophical significance of image schemas, in: B. Hampe (Ed.), From Perception to Meaning: Image Schemas in Cognitive Linguistics, Mouton de Gruyter, Berlin and New York, 2005, pp. 15-33.
[22] B. Hampe (Ed.), From Perception to Meaning: Image Schemas in Cognitive Linguistics, Mouton de Gruyter, Berlin and New York, 2005.
[23] T. C. Clausner, W. Croft, Domains and image schemas, Cognitive Linguistics, 10.1 (1999) 1-31.
[24] M. Kimmel, Culture regained: Situated and compound image schemas, in: B. Hampe (Ed.), From Perception to Meaning: Image Schemas in Cognitive Linguistics, Mouton de Gruyter, Berlin and New York, 2005, pp. 285-311.
[25] J. E. Grady, Image schemas and perception: redefining a definition, in: B. Hampe (Ed.), From Perception to Meaning: Image Schemas in Cognitive Linguistics, Mouton de Gruyter, Berlin and New York, 2005, pp. 35-55.
[26] R. W. Gibbs, Embodiment and Cognitive Science, Cambridge University Press, Cambridge, 2006.
[27] M. M. Hedblom, O. Kutz, R. Peñaloza, G. Guizzardi, Image schema combinations and complex events, KI – Künstliche Intelligenz, 33 (2019) 279-291.
[28] D. Pecher, I. Boot, S. Van Dantzig, Abstract concepts: Sensory-motor grounding, metaphors, and beyond, in: B. Ross (ed.), volume 54 of The Psychology of Learning and Motivation, 2011, pp. 217-249.
[29] E. Dodge, G. Lakoff, Image schemas: From linguistic analysis ot neural grounding, in: B. Hampe (Ed.), From Perception to Meaning: Image Schemas in Cognitive Linguistics, Mouton de Gruyter, Berlin and New York, 2005, pp. 57-91.
[30] D. Pecher, R. Zeelenberg, Boundaries to grounding abstract concepts, Philosophical Transactions of The Royal Society B Biological Sciences, 373 (2018). DOI:10.1098/rstb.2017.0132.
[31] G. Brun, U. Doğuoğlu, D. Kuenzle (Eds.), Epistemology and Emotions., Ashgate, Aldershot, 2008.
[32] S. Loev, Affectivism about intuitions, Synthese, 200.4 (2022) 1-24.
[33] G. Lakoff, Women Fire, and Dangerous Things: What Our Categories Reveal About the Mind, Chicago University Press, Chicago, IL, 1987.
[34] G. Lakoff, M. Turner, More than Cool reason. A Filed Guide tob Poetic Metaphor, Chicago University Press, Chicago, IL, 1989.
[35] A. Cienki, Some properties and groupings of image schemas, in: M. Verspoor, K. Dong Lee, E. Sweetser (Eds.), Lexical Learning and Syntactical Constructions and the Construction of Meaning, Benjamins, Amsterdam and Philadelphia, 1997, pp. 3-15.
[36] B. Hampe, Image schemas in cognitive linguistics: Introduction, in: B. Hampe (Ed.), From Perception to Meaning: Image Schemas in Cognitive Linguistics, Mouton de Gruyter, Berlin and New York, 2005, pp. 1-12.
[37] A. Cienki, An image schema and its metaphorical extensions, Cognitive Linguistics, 9.2 (1998) 107-149.

[38] Lakens, D., G. R. Semin, F. Foroni, Why your highness needs the people. Comparing the absolute and relative representation power in vertical space, Social Psychology, 42.3 (2011) 205-213.
[39] A. Kranjec, A. Chatterjee, Are temporal concepts embodied? A challenge for cognitive neuroscience, Frontiers in Psychology, 1 (2010). doi.org/10.3389/fpsyg.2010.00240.
[40] E. Hering, Beiträge zur Physiologie. Fünftes Heft: Vom binocularen Tiefsehen. Kritik einer Abhandlung von Helmholtz über den Horopter, Engelmann, Leipzig, 1864.
[41] A. Riehl. Der philosophische Kriticismus und seine Bedeutung für die positive Wissenschaft. Zweiter Band. Erster Teil: Die sinnlichen und logischen Grundlagen der Erkenntnis, Engelmann. Leipzig, 1879.
[42] A. Riehl. Realistische Grundzüge. Eine philosophische Abhandlung der allgemeinen und nothwendigen Erfahrungsbegriffe. Leuschner & Lubensky, Graz, 1870.
[43] B. Russell. The Analysis of Mind, George Allen and The Macmilan Company, London and New York, 1921.
[44] D. Romand, William Stern on the "psychical time of presence". Historical and theoretical study of a cognitive model of time perception and autonoetic consciousness. Journal für Philosophie und Psychiatrie, Supplement, 2011.
[45] D. Perrin, K. Michaelian, A. Sant'Anna, The phenomenology of remembering is an epistemic feeling, Frontiers in Psychology, 11 (2020). doi.org/10.3389/fpsyg.2020.01531.
[46] D. Perrin, A. Sant'Anna, Episodic memory and the feeling of pastness. From intentionalism to metacognition, Synthese 200.2 (2023) 1-26.
[47] E. Stefanova, O. Dubljević, C. Herbert, B. Fairfield, et al., Anticipatory feelings: Neural correlates and linguistic markers, Neuroscience and Biobehavioral Reviews, 113 (2020) 308-324.
[48] R. Avenarius, Kritik der reinen Erfahrung. Zweiter Teil: Die abhängiger Vitalreihen, 2nd. ed., Reisland Leipzig, 1908 (book first published 1890).
[49] E. Pacherie, The sense of control and the sense of agency, PSYCHE: An Interdisciplinary Journal of Research on Consciousness 13:1 (2007) 1-30.
[50] J. P. Bermúdez, O. Massin, Efforts and their feelings, Philosophy Compass, 18.1 (2023). https://doi.org/10.1111/phc3.12894.
[51] M. Ratcliffe, The phenomenology of existential feeling, in: J. Fingerhut, S. Marienberg (Eds.), Feelings of Being Alive, De Gruyter, Berlin and Boston, 2012, pp. 23-54.
[52] J. Dokic. Feelings of (un)certainty and margins for error, Philosophical Inquiries, 2 (2014) 123-144.
[53] L. Isenman, Understanding Intuition. A Journey in and Out of Science, Academic Press, Cambridge, MA, 2018.