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***See / Witness* and the ‘setting-subject construction’  
An egocentric or anthropocentric perspective? An animacy- and subjectivity-based approach**

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**Abstract**

Perception verbs prototypically occur with a grammatical subject NP referring to a person. However, *see* and *witness* also license an inanimate grammatical subject, more precisely a spatial or temporal setting, in a “*setting-subject construction*” (Langacker 1991, 2008). The present study addresses this kind of variation, and demonstrates how the two alternate constructions reveal shifts from an egocentric perspective to an anthropocentric perspective. It sets out to accomplish three main goals: first, to establish whether each construction aligns perfectly with one particular perspective; second, to identify the semantic and syntactic characteristics of setting-subject constructions and explain how an inanimate subject NP can be favored over a human subject NP; third, to determine what can motivate speakers’ choices between the two alternate constructions licensed by *see* and *witness*. To achieve this, a qualitative, corpus-based analysis is carried out, which helps to understand to what extent the grammatical coding embodies a specific way of viewing the scene. First, the cognitive theoretical concepts (e.g., the Extended Animacy Hierarchy (Croft 2003), egocentric and canonical viewing arrangements, cognitive schemas and models) that are helpful for the proper characterization of the two structures are presented, as well as the methodology employed to collect data for the present study. I then focus on prototypical, human subject NP constructions which reveal either an egocentric or an anthropocentric point of view of the scene. Finally, setting-subject constructions are addressed: not only are the characteristics of such structures highlighted but also the parameters and factors that contribute to their occurrence are identified. The study shows that such constructions convey the conceptualizer’s assessment of a situation, as the viewing relationship is construed subjectively. A setting-subject construction thus reveals a perspective that indirectly turns out to be more anthropocentric than ‘setting-centric’, as the inanimate locative subject, ranking at the bottom of the Animacy hierarchy, winds up alluding to any possible human being, including the speaker, the addressee and the Other.

## 1. Introduction

Language provides speakers with ample opportunities to express similar ideas in different ways and to construct clausal elements around verbs in alternate ways. For instance, perception verbs such as *see* and *witness* prototypically occur with a grammatical subject noun phrase (NP) referring to a person ([1-2]), as they denote processes that come within the perspective of humans. However, *see* and *witness* can also license an inanimate grammatical subject in what Ronald W. Langacker (1991, 2008) calls a “*setting-subject construction*”: only these two perception verbs can take a spatial or temporal setting as subject, such as *the middle of the 20th century* in [3] and *the country* in [4].

- (1) The consequences of the 1914-18 war are only now being reversed. After that war we **saw** the rise of communism and fascism and of Hitler. (*BNC*)<sup>1</sup>
- (2) Since 1990, we **have witnessed** the rise and fall of alternative rock; [...]. (*COCA*)
- (3) The first part of the 19th century **saw** the question of slavery, long a routine part of human history, become an issue of such transcendent importance that it ignited a horrible war. That fight was mandatory; to duck it was to choose sides. The middle of the 20th century **saw** the rise of Hitler. (*COCA*)
- (4) The country **has witnessed** continuous and sometimes dramatic change. In the past 300 years alone, the nation *has experienced* industrialization, the advent of democracy, and the introduction and growth of the welfare state – yet the changes have never been such as to be described as revolutionary. (*BNC*)

Why does English provide these two variants, and when do speakers choose one or the other? The present study addresses this kind of variation, and aims to demonstrate that the two alternate constructions show shifts from an egocentric perspective to an anthropocentric perspective. It sets out to accomplish three goals: first, to establish whether each construction aligns perfectly with one particular perspective – egocentric or anthropocentric; second, to identify the semantic and syntactic characteristics of the setting-subject construction as well as the parameters and factors that either constrain the construction or contribute to its occurrence in discourse; third, to determine what can motivate speakers’ choices between the two alternate constructions licensed by *see* and *witness*. To achieve this, a qualitative, corpus-based analysis is conducted, which helps to understand to what extent different grammatical codings embody specific ways of viewing the scene. The cognitive schemas, models, and concepts prove particularly relevant in showing how the two different structures function and in explaining why an inanimate subject NP denoting a temporal or spatial expanse can be favored over a human subject NP, given that it is usually put forward that high animacy correlates with high topicality.

Section 2 is devoted to the theoretical concepts that are helpful for the proper characterization of the two structures in a cognitive perspective. Among these concepts we find the Extended Animacy Hierarchy

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\* I would like to express my gratitude to the two anonymous reviewers and the editors for their valuable comments and suggestions.

<sup>1</sup> All bold, italics and underlining marks are added for emphasis.

(Croft 2003) and the parallel empathy hierarchy, which are closely linked to the concepts of egocentrism and anthropocentrism, the related notions of topicality and subjecthood, the figure/ground organization and the trajector/landmark alignment in the canonical event model, as well as the correlated concepts of subjectivity, subjectification and grammaticization. Section 3 presents the methodology employed to collect data for the present study. I then focus on the characteristics of *see* and *witness*, and their prototypical constructions; such sentences, in which the verb has a human subject NP, can reveal either an egocentric or anthropocentric point of view on the scene. Finally, setting-subject constructions are addressed, in order to identify how the viewpoint they convey is built in discourse. Comparing them to prototypical structures also helps to bring to light the motivation and the conceptualization underlying the choice of a setting as subject.

## 2. Theoretical concepts related to the choice of clausal subject

The subject assumes a pivotal role in grammatical structure, because some form of cognitive salience makes it particularly accessible. If the kind of cognitive salience cannot be straightforwardly determined, given that varied types can be involved, topicality looks to be a likely and relevant notion. Subjecthood is not to be identified with topicality, though the two concepts are closely related. The subject is a clause-level construct, “the most prominent clausal element” (Langacker 1991: 346) while the topic, which pertains to discourse phenomena, is “a subjective point of reference” (Langacker 1991: 314) in that it is used to establish a mental contact with another element.<sup>2</sup>

Several hierarchies, some of which are natural prominence scales, help to determine the ranking of arguments.<sup>3</sup> The **Extended Animacy Hierarchy** is a complex hierarchy of categorization which conflates traditional animacy and person hierarchies. William Croft (2003: 130) represents it as follows: “first/second person pronouns < third person pronoun < proper name < human common noun < nonhuman animate common noun < inanimate common noun.” This hierarchy involves three distinct, though related, functional dimensions (Croft 2003: 130):

- *Person*: first, second < third
- *Referentiality*: pronoun < proper name < common noun
- *Animacy*: human < animate < inanimate

In each dimension, the first element outranks the following; for example, in the animacy hierarchy, humans outrank nonhuman animates, which in turn outrank inanimates. This hierarchy is often considered as reflecting the inherent topicality of NPs, as animates are assumed to be more topical than inanimates. While animacy is a major distinction in human cognition, in language it is correlated with linguistic notions such as

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<sup>2</sup> The topic is a subjective reference point in two respects: first, it remains offstage and is often unmentioned, being part of the background common to the speaker and the addressee; second, the basis for the reference-point function resides in the knowledge of the speaker and the hearer. See Langacker (1991: 313-317) for a development of this point.

<sup>3</sup> Prominence scales are scales that rank arguments according to values of an attribute (Levin & Rappaport Hovav 2005: 173).

person and thematic roles. Indeed, agents are animate in a majority of cases, as most proto-agent properties entail animacy: for instance, experiencers are necessarily animate, since conscious experience or “sentience” presupposes animacy (Dowty [1979] 1991).

Langacker (1991: 306-307) makes the case for an “**empathy hierarchy**” which parallels Croft’s hierarchy and whose starting point is the speaker: speaker > hearer > human > animal > physical object > abstract entity. This hierarchy reflects “an egocentric assessment of the various sorts of entities that populate the world; it ranks them according to their potential to attract our empathy, i.e., on the basis of such matters as likeness and common concerns.” First- and second-person clauses thus derive from an “egocentric viewing arrangement”, that is, “[a]n arrangement in which the objective scene is expanded beyond the region of perceptual optimality to include the observer (or analogously, the conceptualizer) and his immediate surroundings.” (Langacker 1991: 547). As such, they represent a departure, albeit a minor one, from the canonical, or “optimal”, viewing arrangement in which “[t]he roles of the observer and the observed are fully distinct, the latter being sharply differentiated from its surroundings and situated in a region of maximal perceptual acuity.” (Langacker 1991: 550). Third-person clauses then derive from the latter arrangement.

The empathy hierarchy and the viewing arrangements pertain to vantage point, and are linked to the concept of **subjectivity**, which is a matter of construal. In Langacker’s model, subjectivity relates to the speaker’s unmentioned presence in the sentence. An entity is construed subjectively when it remains offstage, as an “implicit, unselfconscious subject of conception”. Conversely, an entity is construed objectively when it is put onstage as “an explicit focus of attention” or “object of conception” (Langacker 2006: 18).<sup>4</sup> Subjectively construed entities usually include the speaker and the addressee in their offstage role as conceptualizers who either use the expression or apprehend its meaning, while objectively construed elements include the event and its participants. However, these are a matter of degree. For instance, first- and second-person clauses fail to maintain the correlation between distinctness from the ground and objectivity of construal, namely between the subject of conception and the object of conception. They are nevertheless natural and frequent, given that a pronoun such as *I* or *you* designates a speech-event participant (Langacker 1987: 500) and that we are most directly concerned with ourselves. Jan Nuyts (2001), following Langacker, introduces an additional distinction within the realm of subjectivity, based on the status of the evidence in the interaction between the speaker and other participants. When the evidence is accessible only to the speaker, Nuyts regards it as “subjective”: only the speaker is responsible for the evaluation presented in his/her assessment. On the contrary, when the evidence is also accessible to the

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<sup>4</sup> It is to be noted that the terms ‘subjectivity’ and ‘subjectification’ are used in different ways. For instance, Traugott’s subjectivity (1989, 1995) is concerned with the speaker’s attitude, viewpoint and/or belief expressed in the sentence. However, Traugott’s and Langacker’s uses are not unrelated as they pertain to aspects of meaning and semantic change.

hearer or a larger group of people, it is viewed as “intersubjective”: the epistemic conclusive qualification is shared by those having the same knowledge of, or access to, the evidence.<sup>5</sup>

The empathy hierarchy constitutes one of the four factors determining topicality (Langacker 1991: 307-312). The four factors pertain to different aspects of the conception of clausal participants, and can be ranked by their degrees of subjectivity, i.e., by their being extrinsic to the event described in the clause. Like empathy, definiteness, which is also a matter of construal, is a mostly subjective factor as it depends on whether or not the speaker and the hearer establish mental contact with the participant. The scale ranks as follows: definite > specific > non-specific indefinite (Langacker 1991: 308); it corresponds to the referentiality dimension in Croft’s Extended Animacy Hierarchy. Different degrees of definiteness can be distinguished: a proper name, for instance, corresponds to a higher degree of definiteness than an NP headed by a common noun.

On the contrary, the **semantic role** of an entity, i.e., the nature of its participation in the event, is the most objective factor. The canonical event model, which is a conceptual archetype, represents the canonical way of apprehending the most typical occurrence, which is usually identified as a forceful event in which an agent acts on a patient to induce a change of state, resulting from the transfer of energy from the agent (Langacker 1991: 283-286).<sup>6</sup> The transmission of force from agent to patient is a manifestation of the source-path-goal image schema. Prototypically, the two focused participants, the agent and the patient, are realized respectively under the form of the subject and the object while the verb profiles an agent-patient interaction. Therefore, a prototypical transitive finite clause is the default grammatical coding – i.e., the way conceptual structures relate to linguistic structures – of the canonical event model.

The two focal elements in a clause – “primary and secondary objects” (Talmy 2000) – are closely related to the notions of Figure and Ground. **Figure/Ground organization** is basic in cognition and is particularly relevant to the semantics of relational predications. It is a wholly subjective topicality factor because figure/ground alignment is inherent in a situation.

The Figure is a moving or conceptually movable entity whose site, path, or orientation is conceived as a variable the particular value of which is the relevant issue.

The Ground is a reference entity, one that has a stationary setting relative to a reference frame, with respect to which the Figure’s site, path, or orientation is characterized. (Talmy 2000: vol. I, 184)

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<sup>5</sup> Nuyts (2001) defines subjectivity and intersubjectivity with reference to modality, but in a way that can be generalized beyond the domain of epistemic modality.

<sup>6</sup> The canonical event model results from the combination of three conceptual archetypes: the billiard-ball model, the action chain, and the stage model. See, for instance, Langacker (1987, 1991, 2008) for a more detailed development.

These definitional properties imply that the Figure has unknown temporal or spatial properties, which only the Ground, as a reference entity, can help to determine. These properties also tend to correlate with associated characteristics (Talmy 2000: vol. I, 315):

- The Figure tends to be smaller, more recently on the scene/in awareness, less immediately perceivable, more salient, once perceived, and more dependent.
- Conversely, the Ground tends to be larger, more familiar/expected, more immediately perceivable, more backgrounded, once the Figure is perceived, and more independent.

A relational predication gives special prominence to one of the participants, which is viewed as the figure within the profiled relationship; this entity is also called the trajector or “primary focal element” (Langacker 2008). When a second entity stands out from the background as a kind of secondary figure, it is referred to as the landmark or “secondary focal element”. The roles of figure and ground in the clause are most often respectively associated with trajector and landmark. The trajector/landmark alignment thus establishes a partial ordering among the clausal participants, since the trajector is the starting point with respect to the natural path (Langacker 1991: 308).

The four topicality factors, combined with the Extended Animacy Hierarchy, predict that a prototypical subject is agentive, human and definite, and elaborates the trajector at clausal level. However, language deploys a large inventory of lexico-grammatical devices that effect the coding of non-canonical situations and allow a given situation to be portrayed in alternate ways. One of these is the variability in the choice of clausal subject or “primary clausal figure” (Langacker). Participants, who are usually conferred trajector and landmark status, are coded by nominals while the setting, which is the onstage region, namely the general locus of viewing attention, is usually specified by a clause-external adverbial, as it is taken for granted. However, alternate alignments in which the trajector status is conferred on the setting – or a location – are not uncommon, as is the case in setting-subject constructions. The setting is portrayed as hosting the occurrences specified by the object nominal, but as it differs from a participant, the trajector is no longer connected to the landmark via an action-chain relation. The profiled relationship is better viewed as the embodiment of the image schema *container-content* in the conception of the canonical event.

Alternate trajector/landmark alignments, as in setting-subject constructions, can sometimes be instances of **subjectification**, which is also a matter of construal. Subjectification concerns degrees of grounding in the perspective of the speaker from a cognitive viewpoint. This gradient phenomenon is found synchronically when “mental operations inherent in experiences of a certain kind are used in abstraction from their content and applied to other circumstances” (Langacker 2008: 537). A relationship which was originally part of the onstage situation, residing in the interaction of focused elements, winds up being subjectively construed, as it now resides in how the subject of conception apprehends what is on the onstage situation; it is thus realigned from the objective axis to the subjective axis (e.g., *The trail rises steeply near*

*the summit*, in which the movement is subjectively construed, as the fictive movement is inherent in the conceptualizing activity.). Other instances of subjectification (Langacker 2006, 2008) are the process of nominalization, whereby an event is conceived as an abstract thing, epistemic modals in contemporary English, and possessive predicates. With epistemic modals and possessive predicates, subjectification is seen as a factor in the diachronic process of **grammaticization**, namely the evolution of lexical terms into grammatical elements. With the former, the modal force present in main verbs in Old English has undergone “a kind of semantic ‘bleaching’ or ‘fading away’” (Langacker 2006: 21).<sup>7</sup> As for the latter, which originally profile a prototypical control relationship (e.g., *I have a new computer*), they are given a reference-point characterization which is valid in all instances (e.g., *This house has four bedrooms*; Langacker 2006: 26-27). Conceptualizing the control of the possessed (T) by the possessor (R) leads the subject of conception (C) to trace a mental path from (R) to (T); hence, the following schematic description of possessives: the syntactic subject functions as a conceptual reference point (R) allowing the conceptualizer (C) to mentally access a target (T), realized by the object nominal.

The two hierarchies defined above will prove particularly helpful in determining the type of ‘centrism’ conveyed by prototypical perception reports and setting-subject constructions (Sections 4 and 5). As for the figure/ground and trajector/landmark alignments, they will allow us to identify the type of construal in the sentence – either objective or subjective; this, in turn, will shed a new light on the meaning conveyed by the two types of constructions and their relation to the concepts of ego- and anthropo-centrism. Before focusing on the structures, I’ll discuss the data collection procedure on which the analysis is based.

### 3. Data collection procedure

To conduct this research, two corpora were examined in search of occurrences of *see* and *witness* in prototypical perception reports (henceforth PPRs) and setting-subject constructions (henceforth SSCs): the British National Corpus (BNC) and the Corpus of Contemporary American English (COCA). Making a comparison between the two types of structures was a means to determine their – similar or different – syntactic, semantic, and conceptual characteristics.

The first objective was to identify types of subject NPs and thus obtain a representative and significant sample of such NPs. Indeed, it could not reasonably be expected to look through all the occurrences of *see* and *witness*, as an impressive total of 1,198,239 occurrences for the verb *see* and of 16,869 for *witness* were found in both corpora. Even though a quantitative analysis was not the primary motivation underlying this study, it could not be envisaged in any case. Moreover, determining what types of NPs instantiate the subject slot was particularly helpful in bringing to light recurring specificities in SSCs. The two corpora were thus

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<sup>7</sup> Langacker (2006: 20-21) underlines that his description of the epistemic modals as an instance of subjectification is compatible with Traugott’s definition of this concept. In Traugott’s terms (1995: 31), subjectification “refers to a pragmatic-semantic process whereby ‘meanings become increasingly based in the speaker’s subjective belief state/attitude toward the proposition’, in other words towards what the speaker is talking about”.

searched for along two successive lines. First, the following strings were used in the interface to identify types of subject NPs in declarative sentences: e.g., '[n\*] [see].[v\*]', '[nn\*] [see].[v\*]', and '[p\*] [see].[v\*]', which read as 'noun / noun phrase / pronoun + all forms of the verb *see*'. Then the lists of findings were carefully looked through and types of subject NPs were identified. Listing temporal and spatial locative NPs in SSCs also resulted in getting an overview of the types and specific characteristics of verbal objects. Second, in order to cross-check the items obtained and allow for finer-grained distinctions at the same time, the object slot was searched for deverbal nouns, such as *change*, *development* or *increase*. For instance, the following collocates were used for the verb *witness* in the BNC and the COCA: '[witness].[v\*] + \* + growth' and '[witness].[v\*] + \* + conflict', which correspond respectively to '*witness* (all forms of the verb *witness*) + any term + *growth* / *conflict*'. This enabled us to draw up the types of object NPs in SSCs, both definite and indefinite.

#### 4. Prototypical perception reports with *see* and *witness*

##### 4.1 The main characteristics of *see* and *witness*

*See* and *witness* are usually classified as perception verbs in a number of grammars and reference books: see René Dirven (1989), Robert M. W. Dixon ([1991] 1992), M. A. K. Halliday and Christian M. I. M. Matthiessen ([1985] 2014), Beth Levin (1993), John Sinclair (1996). They are more precisely subclassified as non-agentive perception verbs, i.e., as verbs expressing an “experiencer-based” perceptual process (Viberg 1984).

Perception verbs can be viewed as localizers; this position is stated, for instance, by Antoine Culioli (1990: 206), who takes the example of *voir*, the French equivalent of *see*:

Now, *voir* (among other verbs, such as *regarder*, *écouter*, etc.) is a localizer, which provides a sensory process with a (subjective) seat, at any rate in one of its uses (*X voit Y entrer* or *X voit entrer Y*). So that *voir* can be defined as non-interagentive and localizing. ... But *voir* is as much of a localizer as *il y a*, *j'ai* [there is, I have]; [...].

Localization is a fundamental operation for non-agentive perception verbs, as it is for possessive verbs such as *have*. *Have*, in its ordinary use, indicates integration of the object referent into the sphere of the subject referent, as well as localization of its object in relation to the grammatical subject. Both perception and possessive verbs then show an affectedness component, and *have* is to be considered as any other subject-experiencer verb (Croft 1991).

While visual perception is the original core meaning of *see*, as it might originally mean “follow with the eye”, *witness* was first recorded in 1300 with the meaning of “bear testimony” (*OnED*). *Witness* came to be used with the perception sense – preferably visual perception – in the sixteenth century. As such, it expresses visual perception in one of its uses only, and has other senses in which a perceptual – either visual or auditory

– process is only implicit or underlying. This is evident in the respective definitions of *see* and *witness* in the *OED*:

- *see*: “to perceive (light, colour, external objects and their movements) with the eyes.” (first recorded in Old English, circa 1122)
- *witness*: “to be a witness, spectator, or auditor of (something of interest, importance, or special concern); to experience by personal (esp. ocular) observation.” (first recorded in 1582)

*See*, then, can be considered as a prototypical instance of the category of “perception verbs”, more specifically of non-agentive visual perception verbs, while *witness* can be regarded as a peripheral member of that category.

Another striking difference between the two verbs is that unlike *witness*, *see* is also categorized as a cognition verb in some of the aforementioned books. In [5], for instance, the process denoted by the *that*-clause is not the perceived event itself; it corresponds to a negative wording of the conclusion inferred from the perceptual data obtained in the perceiving act. In such sentences, there is more than perceptual evidence: *see* can be glossed as “know / realize by seeing”, thus semantically encompassing the idea of both a perceptual act and the acquisition of some knowledge by the experiencer. It is then preferable to consider that *see* undergoes a lexical shift from immediate perception to inference, and such notions as knowledge or epistemic judgement.

- (5) She [...] composed her face into an expression of detached amusement as she went back into the other room. ‘Well,’ she said **seeing** that Luke was no longer on the phone, ‘so it was Rob, after all. Aren’t you pleased I insisted on answering?’ She **saw** *Luke’s face change, grow baffled, then harden* as he noted her composure. (BNC)

#### 4.2 Prototypical perception reports with *see* and *witness*: Mirroring an immediate experience

A crucial semantic feature common to *see* and *witness* is that they denote a process whose primary participant is an experiencer, most often a human being, or at least an animate entity. In PPRs such as [1-2], *see* and *witness* take the experiencer as subject, and what is perceived, the stimulus, as direct object. Such PPRs express the point of view of the experiencer on a situation. Indeed, as part of the category of “private verbs” (Palmer [1974] 1988: 72), perception verbs designate processes that can only be accessed if the primary participant – also called “inherent participant” (Cotte 2005) or “primary focus” (Langacker 1987, 1991) – i.e., the experiencer, lets other people know about his/her direct apprehension of the scene, as in first-person clauses ([1-2], [6]).

- (6) In my vision I **saw** you, shrouded by dense fog, making your way through this park. I **witnessed** a shadowy human figure turn into a large slathering beast and attack you. (COCA)

- (7) And you, as *you watched* him prepare to take office, I mean, you interviewed these guys. You were in Mexico City. You knew them well. And you write that at some point when you **saw** Calderon looking at the violence and just what a serious threat it proposed, you said you wrote down in your notebook he gets it. (COCA)
- (8) Folded up, she fit neatly within a cedar trunk sealed with pitch, and is at present being shipped to Scotland. You **witnessed** her departure from this courtyard an hour ago.
- (9) It was a trial by ordeal. Could he stand and **see** his father slowly dissolve and disappear in death, without once yielding his will, without once relenting before the omnipotence of death. (WIL)
- (10) She recalls the first time she **witnessed** a teenager shackled in court, in 2012: “I remember looking around and wondering if someone was going to... ask for the restraints to be removed... but it seemed like no one **saw** the shackles or **saw** this girl wearing them.” (COCA)
- (11) That old T-shirt didn’t act like a sponge. It was flint. Now Kelly **saw** and **smelled** smoke. (COCA)
- (12) Steve Campell **witnessed** a woman desperately trying to dry filters and engine parts of her son’s car after it was swamped on the city’s south side. (COCA)
- (13) *In their bedroom, in the night*, the husband **saw** that the wife was ashen-faced, and trembling; the wife **saw**, with a pang of love for him, a despairing sort of love, that the husband was looking strained, older than his age; beneath his eyes, bruised-looking shadows. (COCA)
- (14) *Last year*, observers in Colorado **witnessed** a record-breaking display of these wispy, 50-mile-high nighttime clouds. (COCA)

All perception verbs can have subject NPs that match with the top of the Extended Animacy Hierarchy: first-person ([1-2; 6]) or second-person ([7-8]) pronouns; NPs containing terms ranking lower in the hierarchy – third-person pronouns ([9-10]), proper names ([11-12]), and human common nouns ([13-14]). Where first-person sentences express a report of the visual perception by the experiencer, second- and third-person sentences ([7-14]) are sometimes derived from the speaker’s hypothetical reasoning. This looks to be the case in [14] and in the last part of [10]. On the contrary, third-person and proper-name examples [9-10, 12] are clear cases of internal focalisation (see, for instance, *now* in [11]) while second-person clauses such as [7] can be understood as deriving from a report from the referent of *you*.

In first- and second-person clauses, the subjects also match with the top of the empathy hierarchy. Therefore, such sentences show an egocentric viewing arrangement: the experiencer is construed both objectively, as it is the focus of attention on the onstage region, and subjectively, as it also corresponds to the subject of conception, either the speaker or the addressee. An egocentric viewpoint is thus adopted, given that the conceptualizer’s self is the starting point, the center of both the perceptual experience and the conceptualizing activity. However, when clauses have third-person subjects, which rank lower in the empathy hierarchy, the viewing arrangement is considered as canonical. The experiencer, construed only as the object of conception, is clearly distinct from the conceptualizer. As the Other is the center of the perceptual experience described in the clause, it is, then, an anthropocentric viewpoint that is adopted; more precisely, a viewpoint which shows a move away from an egocentric perspective, as it is centred on a human being other than the speaker or addressee.

It can also be observed that, like other perception verbs, *see* and *witness* license various types of complements: NPs (*you* in [6]); non-finite clauses (NP + bare infinitive clause in [9]: *his father slowly dissolve and disappear in death*; NP + -ING-clause and NP + -EN-clause in [10]: *this girl wearing them* and *a teenager shackled in court*); finite clauses (e.g., a *that*-clause in [13]: *that the wife was ashen-faced*).

As perception verbs like *see* and *witness* prototypically profile a perceptual interaction, the experiencer, a proto-agent role in Dowty's sense of the term, is focused as trajector and the perceptual object, the stimulus or theme in thematic relations, as landmark. Therefore, PPRs represent a significant departure from the prototypical basic transitive clause:

- The subject and the object respectively code the experiencer and the stimulus – instead of the agent and the patient.
- The verb does not express a forceful interaction involving the transmission of energy from the initial participant to the next; if, indeed, there is any transmission at all, it rather seems to be the other way round – from the stimulus to the experiencer. Perception can indeed be conceptualized as an experienced-to-experiencer sensory path, with a stimulus emitted by the experienced and stimulating the experiencer on encountering it. An alternate, reverse way of conceptualizing perception is to conceive an experiencer-to-experienced path direction, with a probe moving from the experiencer and detecting the experienced (Talmy 2000: vol. I, 115).

Such a departure is far from exceptional, as no language has a distinct clause type for each archetypal experience. For instance, English does not have a distinct clause construction for mental or perceptual experience, which is then grammatically coded with a regular transitive clause. This strategy represents a natural semantic extension motivated by an abstract similarity. Spatial movement towards a goal, the transmission of force from agent to patient, and the viewing of other entities all manifest the source-path-goal schema. English thus employs a clause type grounded in physical occurrences for the coding of experiential relationships, favoring the experiencer as source of the visual path and hence selecting an entity ranking in the top part of the Animacy Hierarchy as subject. Just as a causative agent gives a participant its status of patient (Cotte 2006), an experiencer is regarded as giving a participant its status of stimulus. Indeed, perceiving an entity or an event implies that it is present in the perceptual field, whose delimitation depends on the setting or location of the experiencer – either temporal (*last year* in [14]) or spatial (*in Mexico City* in [7] and *in Colorado* in [14]).

The canonical event model also implies that the event unfolds within some global setting, and is the focus of attention within the immediate scope – or onstage region. Typical settings are rooms, buildings, and geographical regions, which are conceived as hosting events rather than participating in them. Conversely, people and objects participate in actions and interactions, and at a given instant, each participant is found at

some location (any point or area) within the setting. A setting or a location simply hosts (rather than interacts with) participants, because being in a place does not, in and of itself, amount to interacting with it.

- (15) *Since 1967, we **have seen** the rise of the concept of Judea and Samaria within the Israeli people. (BNC)*
- (16) *Over the past couple of years we **have seen** application tools embrace the facilities offered by the Windows front end or graphics user interfaces (GUIs). (BNC)*
- (17) *During these last few months, you and I **have witnessed** one of the greatest dramas of the 20th century, the historic and revolutionary transformation of a totalitarian dictatorship, the Soviet Union, and the liberation of its peoples.... (COCA)*
- (18) *During the last two years we **have witnessed** many people's lives in West Belfast getting poorer, nastier, more brutal and arguably shorter due to the introduction of the Social Fund, high interest rates and cuts in the health service. (BNC)*
- (19) *In his final years he **witnessed** the introduction of vaccination (1798) and the rejection of inoculation by the majority of doctors. (BNC)*
- (20) *Over two days of shooting nearly 100 customers **witness** Brian's badgering and less than a dozen stand up to him. (COCA)*
- (21) *In places like Irian Jaya (West Papua), Indonesia, we're **seeing** the rise of "first-contact tourism", an abhorrent strain of travel that invites the curious to, essentially, disrupt another culture's sanctity; [...]. (COCA)*
- (22) *"The result is that in many small towns, especially in the South Island, we **are seeing** the growth of glass mountains" says Zero Waste New Zealand Trust. (COCA)*
- (23) *Around the country, we **are witnessing** cities and mayors taking lead in developing locally tailored action plans for fighting pollution and poverty at the same time. (COCA)*

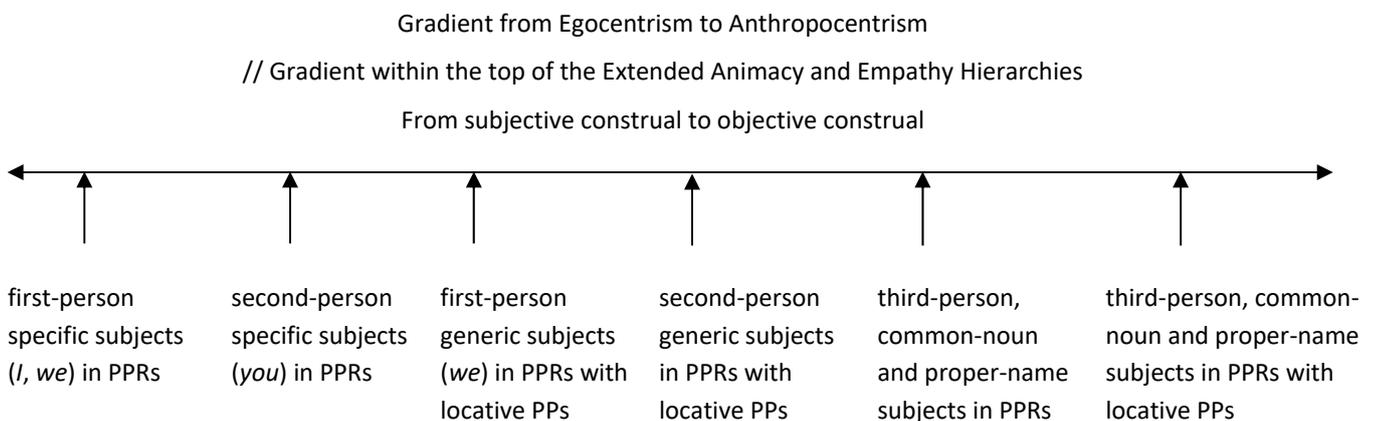
A setting is usually grammatically coded by a clause-external adverbial, such as the prepositional phrases (PPs) *in many small towns, especially in the South Island* in [22]. It hosts the perceptual event (*we are seeing the growth of glass mountains*), in which the two participants (*we* and *the growth of glass mountains*) interact with one another – the stimulus acting on the perceiver who, in turn, locates it in his/her experience – while occupying precise locations within the setting. Sentences [15-23] differ from sentences [7-12] in that they contain a locative PP (italicized in the sentences), either temporal ([15-20]) or spatial ([21-23]), which indicates the precise period of time (e.g., *during the last two years* in [18]) or place (e.g., *around the country* in [23]) in which the perceptual experience occurs. The experiencer is thus explicitly hosted in a setting in which the perceptual process is actualized.

Indeed, as an autonomous entity, a participant is related to space, and as such, can always be located in space, whereas a process is a temporal relationship and therefore intrinsically belongs to time. However, a process can be anchored in space through its participants; it thus conceptually depends on its participants, who precede it and are conceived as the supporting structures of the process. As the participants' presence and involvement in the relationship denoted by the process call the latter into existence, the participants can also be viewed as the locus where the process unfolds (Cotte 2012). Once a primary participant – which

Bernard Pottier (1992: 95) calls “*l’entité-support*”, “the support-entity” – is present or identified in space, it can be the origin of an activity. This is particularly obvious in PPRs: the experiencer, namely the inherent participant in the process, is usually defined as the subjective seat of a psychological experience (Groussier and Rivière 1996: 182). Therefore, perception originates in the primary participant’s location, which provides the perceptual process with a reference point – both spatial and temporal, albeit implicit in most sentences – while delimiting the participant’s perceptual field at the same time. In sentences [15-23], the location is part of a setting which is mentioned by means of a PP while in [8-12], it is not explicitly stated. Indeed, in unmarked coding, the setting/participant distinction is reflected in the clause structure by the grammatical opposition between on the one hand, nominal subject and object, which are conceptually autonomous and central to the structure of a clause, and on the other hand, clause-level adverbials of time and place, which are optional, due to their being conceptually dependent on the remainder of the clause.

What is foregrounded in all the above-mentioned sentences is the experiencer’s viewpoint, which depends on his/her location in the setting, whether the setting or location is explicitly stated or not. For instance, someone not living in Mexico City, i.e., the global setting in which the process unfolds, could not perceive the event denoted by *Calderon looking at the violence* in [7].

So, looking closely at sentences [6-23], a gradient from egocentrism to anthropocentrism can be conceived, which follows the top parts of both the Extended Animacy Hierarchy and the empathy hierarchy: from clauses with first- and second-person pronouns, in which the perceiver’s experience is construed both objectively and subjectively, to clauses with third-person pronouns, proper names, or common nouns, in which it is construed only objectively. An in-between position could be occupied by sentences with first- or second-person pronouns that mention the temporal or spatial setting hosting the experiencer ([15-18; 21-23]), since the locative PP designates a setting in which any potential experiencer could have perceived the event. This can be justified by the generic sense of first-person plurals in [15-16, 18, 21-23]. As for third-person clauses ([19-20]), locative PPs could be said to heighten the objective viewing arrangement; see, for instance, [19] in which any present human could have perceived the event at the time. The question is: can this gradient be extended and made more comprehensive so as to include setting-subject constructions?



**Figure 1.** Scale of perception

## 5. See and witness in setting-subject constructions

### 5.1 The main characteristics and constraints of the setting-subject construction

Contrary to a prototypical perception report, a setting-subject construction abstracts away from any particular experiencer. Indeed, in this type of clause, the subject no longer refers to a human participant but to a setting. The grammatical construction aligns the clausal viewing framework in such a way that a setting is focused as trajector while what is experienced is construed as landmark. The subject referent thus matches with the bottom of the Animacy or empathy Hierarchy.

#### 5.1.1 Setting-subject NPs

The prototypical setting in a subject NP, which is most often definite, is a spatial or temporal expanse. As far as spatiality is concerned, the referents of subject NPs are quite varied, and we can find NPs containing:

- a general noun: *area, country* ([4, 24]) or alternately a partitive NP such as *part of the country, place, premises, world*; and so on. The NP always has an antecedent in the left co-text which allows for the identification of the precise place.
- the name of a continent, country, region or city: *Africa, Europe* ([25]); *America, Mexico, Japan* ([24]), *Spain, Thailand, Turkey* ([26]); *Florida, North and Central Italy; London, Lyon* ([25]), *Paris, Venice*; and so on.
- a reference to a type of place: *airport, city* ([25]), *country club* ([27]), *emergency room, frontier, institution, school, site, store, town, university* ([28]); and so on.

(24) But regardless of who wins, the campaign will be unlike any Japan **has ever seen**. It has been more than four decades since the country **witnessed** an open battle between genuinely electable leaders whose differences are so plain. (BNC)

(25) *But in the late 1980s* Europe **saw** the emergence of the “Eurocities” movement, a lobbying and promotional effort by a number of dynamic regional cities that **saw** their chance in the EC’s push for regionalization and the single market. Lyon quickly emerged as the most dynamic French member of the group. (COCA)

(26) Finally, Turkey **witnessed** a rising tide of nationalist sentiments in the aftermath of the Cold War. (COCA)

(27) But because she is a woman, she is denied weekend-morning tee times. Conflicts over weekend tee times have set off some of the fiercest emotional battles country clubs **have ever seen**. (COCA)

(28) *In November 1994*, the University of Iowa **witnessed** an event that stretched time-honored stereotypes of America’s heartland to the breaking point. (COCA)

The construction shifts primary focal prominence to the encompassing spatial setting, which is portrayed as hosting the occurrence described by the object NP (e.g., *an open battle* in [24]). It thus implies that anyone in the setting could have viewed it, as is confirmed by the use of the generic noun *people* in gloss [26’]. In SSCs, as the experiencer remains implicit and is backgrounded, all humans in the setting are potential

experiencers. This can explain why attested examples such as [29] – i.e., a PPR whose subject NP is headed by the generic noun *people* modified by a locative PP – are quite rare.

(26') Finally, people in Turkey **witnessed** a rising tide of nationalist sentiments in the aftermath of the Cold War.

(29) Throughout the trial of Unabomber Theodore Kaczynski, people in the courtroom **witnessed** the agony of David Kaczynski, the man who had turned his brother in to the FBI. (COCA)

The same analysis applies with temporal settings. Indeed, the first-person pronoun *we* in [30] has a generic value and the clause could be rephrased as [30'], which includes a temporal setting as subject NP.

(30) *In the last ten years* we **have seen** a fifty percent rise in serious and fatal accidents, at whose expense colleagues? (BNC)

(30') The last ten years **have seen** a fifty percent rise in serious and fatal accidents [...].

The referents of temporal subject NPs are as varied as spatial subject NPs. The NP can contain or be:

- a general noun denoting a vague period of time: *epoch, era, period* ([31]), *phase, time* ([32]); and so on.
- a noun denoting a more or less large unit of time: *day, month, term, year* ([33]), *decade* ([34]), *century*; and so on.
- an NP referring to a precise period of time: *today; last autumn; the 1920s; the year 1978; the middle of the 20th century* ([3]), *the sixteenth century* ([35]); *the past 30 years; the Middle Ages* ([36]); and so on.

(31) The post-World War II period **has witnessed** a rapid growth in the supply of physicians in many advanced industrial countries and increased specialization in medical care with the expansion of biomedical research. (COCA)

(32) That was Margaret Thatcher, fierce ally of America in a tumultuous time that **saw** the end of the Soviet empire and the rise of U.S. arms in the Middle East. (COCA)

(33) Other public sector bodies have adopted a similar approach, although recent years **have witnessed** a growing tendency, particularly in the nationalized industries, for an increasing proportion of capital expenditure to be financed out of current expenditure. (BNC)

(34) Thus, for example, these decades **saw** the development of new services associated with the emerging welfare state and the expansion of state pensions to cover almost the entire elderly population. (BNC)

(35) Moreover, the sixteenth century **witnessed** a veritable explosion of such biographical dictionaries of notable men, particularly poets and Sufi mystics. (COCA)

(36) The Middle Ages **saw** the development of the brazier (the metal pan atop a torch that holds the flaming material, a la Lady Liberty); [...]. (COCA)

Other kinds of entities can also be construed as a setting; for instance, a film is naturally regarded as a setting for the actors who appear in it while a book is considered as a place where suggestions or advice can be expressed ([37]).

(37) *The 1908 suggestion book* already referred to, deals with several matters of concern and irritation, although some members appeared more inclined than others to write in it. [...] *Over the next few years* the book **saw** suggestions for all manner of things – [...]. (BNC)

Similarly, some NPs can come to refer implicitly to spatial or temporal expanses:

- NPs implicitly referring to places: *Underground* (a firm, in [38]); *Wimbledon* (the tennis tournament, standing for its tennis courts); *societies* (standing for countries); and so on.
- NPs that contribute to delimiting a period of time: *the Vietnam war* ([39]); *the Industrial revolution*; *the presidency*; *the regime*; *the revolution*; *the Second World War*; *the reign of Charles II* ([40]); and so on.
- NPs whose head is modified by an adjective ([41]) or complemented by a PP ([42]) denoting an expanse of time.

(38) Where Harborplace seeded development of hotels, loft housing, restaurants and entertainment complexes [...] Underground **has seen** the rise of only one new hotel and the Coca-Cola museum. (COCA)

(39) In Britain both the Vietnam war and *the Reagan years* **saw** remarkable collapses of faith in the good sense of American leadership. (BNC)

(40) In 1667 the Marquess of Worcester, as Constable of St Briavels and Warden of the Forest of Dean, was ordered to revive the Forest courts there and to see that the Forest laws were obeyed: [...]. But the reign of Charles II **saw** the end of the great Forest courts. (BNC)

(41) Recent developments **have seen** the growth of such services closely linked with other locally-based care, although in many areas services are not adequate to need. (BNC)

(42) In terms of formal policy, a shift in recent years **has seen** equity ostensibly yield place to efficacy. (BNC)<sup>8</sup>

### 5.1.2 Object NPs in setting-subject constructions

Setting-subject constructions are also characterized by a particular type of object NP, which often differs from the object NP in PPRs. It usually contains as head noun:

- a meteorological eventive noun – with a literal or metaphorical meaning: *tide* ([26]); *drought* ([43]); *glaciations* ([44]); *flood* ([45]); and so on.
- an event noun: *battle* ([24, 27]); *chance* ([25]); *event* ([28]); *crises* ([46]); and so on.
- a nominalization denoting a reified process – most often a deverbal noun: *emergence* ([25]); *growth* ([31, 41]); *rise* ([32, 38]); *development* ([34, 36]); *explosion* ([35]); *suggestions* ([37]); *collapses* ([39]); *conflict*, *encounter*, and *rivalry* ([47]); *drops*, *increases*, and *cuts* ([48]); *environmentalization* ([49]); *split* ([50]); *transfer* ([51]); and so on.

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<sup>8</sup> Quite interestingly, [41-42] have a deverbal noun as head of the subject NP. Such deverbal nouns are usually found in object NPs in SSCs. [42] could be rephrased as follows: *In terms of formal policy, recent years have seen an ostensible shift from equity to efficacy.*

- (43) Maradi is a country about twice the size of Texas, but it is a country that **has seen** drought and problems many times before, but never like this. (COCA)
- (44) In addition, the last two million years **have seen** one of the greatest glaciations in the earth's history. (BNC)
- (45) Since the lifting of sanctions the last couple of years **has seen** a flood of wines onto our shelves from the Cape – which has some of the most beautiful winelands in the world. (BNC)
- (46) The postwar years **saw** recurrent crises, and resolutions to be more businesslike and to cut losses. (BNC)
- (47) He was born to a princely family in a country which **witnessed** the conflict between the two empires, the encounter between two cultures, Hellenistic and Persian, and the rivalry between two major religions, Christianity and Zoroastrianism. (COCA)
- (48) *In the 1990s*, institutions across the country **saw** dramatic drops in the length of stays, huge increases in the number of outpatient procedures, and deep cuts in what hospitals are paid for any given treatment. (COCA)
- (49) Henri Acselrad [...] wrote recently that the country **is witnessing** the “environmentalization” of its social struggles – affecting the government, business, civil society, and so on. (COCA)
- (50) [...] the next forty years **saw** a growing split in the ranks of the Sussex leaders as Puritanism spread and the remaining Catholics came under suspicion for their dual allegiances. (BNC)
- (51) The postwar period **witnessed** a transfer of Keynesian economics from the DCs to the LDCs to fill a theoretical vacuum in the latter. (COCA)

Nouns categorize, ascribing referents to categories that are pre-formed in speakers' minds. They can refer to physical objects, abstract entities, but also to events or situations. While the latter are most often realized by non-finite clauses in PPRs, they are grammatically coded by a noun in SSCs. Indeed, the object NPs in SSCs rarely refer to concrete discrete objects, which are prototypical for the class of nouns. The (underlined) object NP in [43-51], for instance, thus both semantically reduces and reifies a process, giving it a static, noun-like quality. The process is not conceptualized as unfolding but is seen as reified. Therefore, in the three different cases identified above, the perceptual object is apprehended and conceived globally as a complex participant – either concrete or abstract – in the experiential process; indeed, the object NP denotes more a result than an ongoing event, amounting to a comprehensive summary.

- Because of its eventive nature, the object in both [43-45] and [46] constitutes a meaningful static form in itself and as such, it is apprehended globally.
- Because of the nominalization process, the reified event in [47-51] is made similar to a static scene – it has an image-like quality – in which no mobile participant is salient. What is conceptually salient is the reified process, rather than the participants potentially involved in it. On the contrary, PPRs frequently contain non-finite clauses allowing for the identification of the participants in the perceived ongoing event.

Of course, it could be argued that the PP complementing the head noun in [47-51] (e.g., *between two major religions* in [47]) contains an NP that realizes a participant in a perceived process; see the paraphrases in [48'] and [50']. However, the grammatical coding by a PP allows for a qualification of the whole reified process

rather than for the identification of two distinct participants interacting in the process – as is the case with non-finite clausal complements. Indeed, such clauses as [48', 50'] with a non-finite clausal complement are quite rare (see attested illustrations in [42, 52]). The very low frequency of non-finite clausal complements in SSCs may originate in the fact that the primary participant in the experienced event is an abstract inanimate entity (e.g., *the issue of values in* [52]), which cannot easily be conceived as the active source of that event; it is seen neither as an access point to the whole perceived event, nor as a pivotal participant between the experiencing process and the experienced one. The “perceived” event is then conceptualized and construed as a reified process in which the original participants are difficult to identify, making it difficult to reconstruct an underlying interaction between them.

- (48') ? In the 1990s, institutions across the country **saw** the length of stays drop dramatically, the number of outpatient procedures increase hugely and what hospitals are paid for any given treatment cut deeply.
- (50') ? [...] the next forty years **saw** the ranks of Sussex leaders splitting gradually [...].
- (52) Unprovoked by media hysteria, the last two years **have seen** the issue of values emerge in the staffroom.  
(BNC)

## 5.2 The setting-subject construction: Mirroring a subjective conceptualization

The characteristics of the object NP contribute to the global meaning of a setting-subject construction. Being static, the setting can be seen as a container hosting a static, reified process, which corresponds to a cognitive content. The SSC is then often better regarded as embodying the container-content schema (Lakoff 1987; Langacker 1987) rather than the source-path-goal schema, prototypical of PPRs ([5-23]).

The container-content schema is also used to describe such clauses as [53], quite frequent in the literature. This schema, illustrated by the verb *contain* itself, explains why SSCs are considered intransitive and, as such, resist passivization with the setting stated in a *by*-phrase ([3']). However, passivization is possible if the setting is construed as a locative *in*-PP, and thus viewed as a container ([3'']) – and not as an experiencer.

- (53) The garden is swarming with bees.
- (53') Bees are swarming in the garden.
- (3) The middle of the 20th century **saw** the rise of Hitler. (COCA)
- (3') \* The rise of Hitler was seen *by the middle of the 20th century*.
- (3'') The rise of Hitler was seen *in the middle of the 20th century*.
- (3''') \* The middle of the 20th century saw the rise of Hitler *with / by the Europeans*.

In constructions such as [53], the roles of figure and ground, which are most often associated with subject and object respectively, are inverted in the clause. Such constructions illustrate a figure-ground relation with a demoted figure and a promoted ground, while clauses such as [53'] show a basic figure-ground precedence relation (Talmy 2000: vol. II, 96). While SSCs have a subject NP that could be associated with the ground,

compatible with a container, their object NP cannot be said to code the figure, contrary to the PP *with the bees* in [53]. Indeed, the figure in PPRs is the experiencer; if it were mentioned in SSCs, the sentence would be ungrammatical ([3'']). Contrary to clauses such as [53], SSCs cannot appear with a demotion preposition like *with* – nor can they with the preposition *by* – introducing the experiencer. Therefore, attractive though they are, the container-content schema and its correlated inverted ground-figure relation do not seem entirely appropriate to characterize and explain SSCs.

In SSCs, the individual human experiencer is no longer the starting point with respect to the natural path of focal prominence; it is the spatial or temporal setting that is the initial point of access. Starting with the global setting is subsequently a strategy used by the speaker who can afterwards zoom in on what occurs within the setting, as is the case in [25], for instance: *Europe* as a whole is first focused, then it leaves way to its cities, and finally Lyon comes into focus. Consequently, the speaker's intentions play a role in the choice between the two possible constructions. Either s/he favors a 'setting-centric' perspective, taking implicitly into account the whole community living in the place or within the period of time expressed, or s/he favors an egocentric or anthropocentric viewpoint, focusing on one human being as a particular witness of events occurring in a precise location or period time of time, as is the case in [54]. Though it is clear that Jenks was not the only one to witness the dissolution of the League of Nations, a locative subject as in [54'] would be less coherent in the context. [54] has Jenks as the main topic, which is consistent with the theme of the book from which it is extracted: *The Dictionary of National Biography* – the focus is on human beings rather than on temporal settings, even if the PP *during that period* explicitly refers to a precise period of time.

(54) He was called to the bar by Gray's Inn in 1936. His early interest in international co-operation drew him to Geneva and in 1931 he joined the International Labour Office. It was the beginning of a lifelong association, during which he rose through successive levels of the organization to become director-general in 1970. *During that period he witnessed* the dissolution of the League of Nations, and was present at the creation of the new order, participating in both the Bretton Woods (1944) and San Francisco (1945) conferences. Jenks believed international organizations were not mere conference secretariats, but should be active participants in shaping the postwar world. (BNC)

(54') The period **witnessed** the dissolution of the League of Nations, [...].

The SSC looks atypical in two different ways: the subject NP realizes a setting and the object NP codes a reified process. We are no longer concerned with mere perceiving – mere seeing or mere witnessing – but with a more cognitive experience. Such clauses express what Leonard Talmy (2000) labels a "ceptive" experience, since they can be viewed as deriving from (1) a series of successive or repeated perceptual experiences by individual perceivers, which, (2) when they are assessed, lead to the inference denoted by

the NP object; and (3) the object comes to be integrated into a setting in an encompassing framework.<sup>9</sup> The object referent is a cognitive, rather than perceptual, entity resulting from the repeated experiences; it derives from a reification process that is maximal, totally achieved, contrary to what happens in clauses like [12], for example, in which the use of a non-finite clausal complement indicates that the reification process is still under way. Such an object NP grammatically realizes a syntactic and semantic compression of a state-of-affairs, which is iconic of the complete integration of the cognitive object it denotes, in terms of both “ceptive” experience and conceptualization. This state-of-affairs then seems unquestionable – unlike a fact or action denoted by a finite or a non-finite clause. The object NP expresses a comprehensive meaningful gestalt which is in complete keeping with the global setting realized by the subject NP. What is really expressed and foregrounded is an assessment, or an inferential result, rather than the direct perceptual experience, of most often repeated events, which originates in the speaker.

Considering that SSCs also abstract away from any particular viewer, this leads us to consider that they are clear illustrations of subjectification, in Langacker’s terms: they derive from mental operations that are inherent in perceptual experience and applied to cognitive activity by way of abstraction, as a final means of transcending direct experience. Subjectification can be hypothesized in various respects and to varying degrees.

- Clause-level trajector status is realigned with the setting, which shares more features of the ground than of the figure; the setting, which usually stands in the background, becomes an object of conception, being thus subjectively construed. Consequently, there is a discrepancy between clause-level trajector and verb-level trajector (a prototypical experiencer).
- The nature of the object NP – containing an event(ive) or deverbal noun – indicates that the reified process it denotes is conceived as an abstract thing. Such nouns, particularly nouns deriving from nominalization – an instance of subjectification –, are an example of the conceptual operations of grouping and reification, given that they group and reify the component states of the verbal process, i.e., the relationships that are profiled at successive instants. These mental operations allow for treating constitutive elements, which need not be individually salient, as a single and unitary entity for higher level cognitive purposes.
- The perceptual experience, such as described in sentences [5-23], was originally part of the onstage situation and resided in the interaction of two focused elements, the experiencer and the stimulus; hence, it was objectively construed. In SSCs, it winds up being subjectively construed as it now resides in the subject of conception, i.e., in the conceptualizing activity and no longer in the perceiving activity. Perception verbs being localizers, a reference-point characterization can be applied to them, as it is to possessive predicates. In PPRs, the experiencer (R) has control over the stimulus (T) while being affected

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<sup>9</sup> Talmy (2000: vol. I, 139-140) adopts the notion of “ception” to establish a cognitive domain encompassing “all the cognitive phenomena, conscious and unconscious, understood by the conjunction of perception and conception. [...] ception would include the processing of sensory stimulation, mental imagery, and currently experienced thought and affect”.

by it at the same time; both are then objectively construed. As this control can be progressively attenuated, an adequate schematic description of perception verbs, i.e., valid in all instances, is that R functions as an affected, conceptual reference point allowing for the offstage conceptualizer to mentally access the target. As the setting is also affected by the reified process inferred through summary scanning, it becomes easily conceived as a reference point. The conceptualizer's mental progression from (R), the setting, to (T), the 'ceived' event (in the sense of Talmy 2000), is immanent in the apprehension of perceptual relationships (see the development about the source-path-goal schema). Therefore, the active perceptual control by the onstage, objectively construed experiencer gives way to the cognitive control or mental access on the part of the offstage, subjectively construed conceptualizer. This is permitted thanks to the absence of an experiencer, who is no longer there to mask the conceptualizer; the latter then simply becomes more evident. The perceptual relationship thus undergoes subjectification.

Consequently, *see* and *witness* designate a more abstract configuration than in the perceptual relationship and come to assume an extended semantic value: they can be glossed as "be the setting – the place or time – for seeing/witnessing". Owing to their more schematic meaning, SSCs could be considered more grammatical than lexical.<sup>10</sup> Indeed, the use of *see* and *witness* with a locative subject goes back to the eighteenth century, over five centuries later than their original uses (*OED*). Subjectification can then be viewed as one of the factors involved in grammaticization. This description is compatible with Traugott's definition of subjectification as a diachronic process or tendency for meanings to become more subjective. The meaning expressed by SSCs illustrates two of the three tendencies described by Traugott (1989: 34-35): (1) meanings based in an external situation – here a perceptual experience – tend to become based in an internal situation – in this case, a cognitive evaluation; (2) meanings become increasingly based in the speaker's subjective belief toward the proposition – which is conveyed by the reified object NP and the construction as a whole.

### 5.3 The setting-subject construction: An egocentric or anthropocentric perspective?

Going back to our previous question: do setting-subject constructions fit in a gradient from egocentrism to anthropocentrism? The subject NP in SSCs matches with the very bottom of the Extended Animacy Hierarchy (i.e., an inanimate) or of the empathy hierarchy (i.e., an abstract entity). Focusing the setting as well as the reified process that exists only within its limits, leads to defocusing any human being occupying the setting, all the more so as no (human) experiencer can be mentioned. These constructions therefore seem to fall

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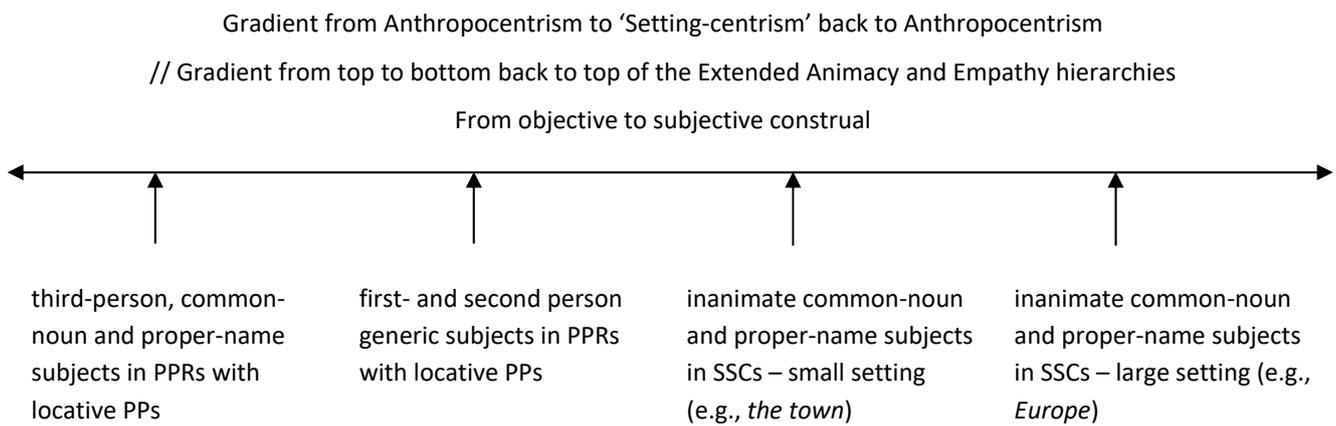
<sup>10</sup> It is to be noted that *voir*, the French equivalent of *see*, can also be used in SSCs, with a locative subject NP denoting place or time: e.g., *Le dernier semestre de l'année 1997 a vu le départ de plusieurs de ses hauts responsables.* (*Le Monde*, 1998). Moreover, *voir* also has an auxiliary use when it is employed with an experiencer construed as a passive subject: e.g., *Paul s'est vu attribuer une bourse pour ses études.*

outside the scope of the scale proposed in Figure 1, and to fit more appropriately in a scale of ‘setting-centrism’.

However, SSCs are sometimes semantically close to PPRs containing a clause-external adverbial denoting the setting which hosts a generic perceptual process; see also, for instance, the eventive or nominalized object NPs in some sentences ([15, 17, 19-22]). It thus can be hypothesized that SSCs partake of both egocentrism and anthropocentrism.

- The difference between PPRs and SSCs lies in the origin – the experiencer vs. the conceptualizer – as well as in the experience itself – from immediate, direct perception to conceptualization. In SSCs, the ‘perceptual’ relationship is subjectively construed as the conceptualizer is the center of the inferential and cognitive process. Since the subject of conception matches with the very top of both the animacy and empathy hierarchies, SSCs could be regarded as expressing an egocentric perspective of a particular kind.
- Additionally, as a setting typically hosts participants, the setting in SSCs can be viewed as hosting any potential visual experiencer having a sequential, immediate perception of an event, whose repetition leads to its being conceptualized as a summary and reified process. There subsequently seems to be a shift to an anthropocentric perspective, similar to the one already identified with PPRs.
- Moreover, because of its generic and abstract meaning, the SSC presents a ‘ceiving’ viewpoint which can be embraced by any potential conceptualizer viewing the scene offstage, or which is even instantly shared by the hearer and other people present offstage. As such, these constructions could be considered as “intersubjective”, in Nuyts’s sense (2001), and thus present an anthropocentric perspective.

It would be more appropriate to consider that SSCs fit in a scale parallel to the gradient in Figure 1, with PPRs containing locative PPs as a pivot between the two scales. First- and second-person generic clauses with a locative clause-external adverbial can be regarded as both egocentric, having a first- or second-person subject pronoun, and anthropocentric, as the pronoun has a wider reference than the speaker or the addressee; the construction thus shows a move away from a purely egocentric perspective. SSCs show a similar tendency, with a twofold movement. They seem to present at first a ‘setting-centric’ perspective, as it is a temporal or spatial expanse that is the primary focal element. However, since any potential experiencer might be alluded to by the setting, the perspective can also be regarded as indirectly anthropocentric. Besides, since the perceptual relationship is subjectively construed, the speaker could be viewed as the center, hence an egocentric viewpoint. Nevertheless, since any potential conceptualizer is also alluded to, there is a shift back to an anthropocentric perspective. The larger the setting is, the more anthropocentric the viewpoint is, as the scope for any potential experiencer or any potential conceptualizer is wider due to the large setting.



**Figure 2.** Scale of 'ception'

## 6. Conclusion

In setting-subject constructions, neither of the two participants in a prototypical perceptual process – the experiencer and the stimulus – is in focus. Indeed, focusing the setting as well as the reified process leads to defocusing any human being and any stimulus hosted by the setting. The whole situation is accessed through the setting itself (setting-centric perspective), which is the most appropriate entity to allow for a global, unified, perspective on the scene, for a comprehensive, encompassing, viewpoint that does not focus on the human participants. Such constructions then seem to move away from both the egocentric and anthropocentric perspectives adopted in prototypical perception reports. However, it is the opposite that is implicitly conveyed as they represent a generalization with the potential to relate and structure individual experiences into a meaningful gestalt.

Inherently hosting participants, a setting usually remains in the background and is focused neither in direct perceptual experience nor in clausal arrangement. However, the figure/ground and trajector/landmark alignments are not intrinsic to a situation, as is shown by the comparison of three types of sentences in this study. In setting-subject constructions, the setting, which is the trajector, is construed subjectively in a non-inherent perspective and grammatically coded by the clausal subject. It could be thought that the setting then acquires human or animate qualities, being affected by the reified process resulting from summary scanning; it looks as though it were personified, which amounts to a type of ontological metaphor (Lakoff and Johnson [1980] 2003). However, there is more to it than that. As we demonstrated, the setting embodies the reference point that allows access for the conceptualizer to the reified process just as in prototypical perception reports, the experiencer is the animate participant that gives the experienced its status as stimulus. Setting-subject constructions are thus an illustration of subjectification, as operations inherent to perceptual experience also apply to a conceptualizing activity they are *a priori* extrinsic to. A setting-subject clause can then be considered as grammatically realizing the cognitive operations of judgement and comparison usually involved in the categorization process. The conceptualizer adopts both an objective and subjective viewpoint on the global scene: the setting is foregrounded as the ceptive field is maximal. The

speaker encompasses the scene as a whole, in order to relate it to other existing situations that are also construed comprehensively. The aim is not to identify existing relations between participants, but to establish links between various processes so as to reconstruct a sequence of contiguous interactions along the temporal axis; this can lead to the identification of potential relations – causal, temporal, and so on.

As a result, the conceptualizer selects a corresponding subjectified, and even grammaticized, setting-subject construction, favoring a holistic logic that does not take into account the individual parts composing the ‘ceived’ scene while at the same time alluding to any potential experiencer or subject of conception. This apparently unusual way of construing the ‘ceiving’ experience amounts to embracing all potential perceivers and conceptualizers. It winds up revealing a perspective that indirectly turns out to be more anthropocentric than ‘setting-centric’, as the inanimate locative subject, ranking at the bottom of both the animacy and empathy hierarchies, is seen as alluding to any possible human being, including the speaker, the addressee and the Other.

A setting-subject clause can then be considered as a micro-world mirroring the encompassing perspective adopted by the conceptualizer and transcending immediate experience. Indeed, though grounded in experience, the world is construed through mental operations of abstraction, conceptual integration and subjectification, which allow humans not only to deal with the real world but also to define it. Though grammatical considerations seem to be disengaged and independent from physical reality, I follow Langacker (2008: 539-540) when he postulates that grammatical meanings “often represent the subjectification of basic experience”. Subjectified and grammaticized setting-subject expressions can then also be viewed as a means of constructing and giving sense to the physical world we interact with through our senses.

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