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Viewing Arrangements and the Perceiving Self: An Embodied Reanalysis of the English Definite Article

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In a modest attempt to help redress the lack of sensitivity exhibited by previous linguistic approaches to subtle differences in meaning in the use of English determiners, this paper presents an "embodied" reanalysis of determiner usage in English that takes into account what appear to be the "perceptual" underpinnings for differently nuanced scene construals signaled by the definite article and some other determiners. One central idea undergirding this programmatic effort is that use of different determiners reflects different "viewing arrangements" for the depicted scenes, whereby the speaker is covertly invoked as the "perceiving" self that impinges on such different construals. Four different viewing arrangements are suggested for four different groups of determiners and the "public" nature of the scene construal typically cued by the definite article is briefly discussed.

One of the most elusive and rebarbative areas of grammar for learners of English as a second language is the article system, a small group of determiners that "sit" in the forefront position of noun phrases. Use of the definite article *the* and the indefinite article *a(n)* is so ubiquitous and extensive in the English language that second language learners cannot avoid making constant decisions as to when and where to use them in actual discourse and often end up making errors without knowing why. Many of them are chagrined about their inability to "crack" the system, lamenting that even small children learn to use the articles correctly and "why can't I?" In fact, acquiring an adult-like system of article usage is no easy feat for English-speaking children, either. A more apposite question for learners to ask, then, seems to be: What makes it so hard for learners and even children in English-speaking cultures to learn the article system in the first place?

Various theoretical and empirical attempts have been made to directly and indirectly answer this seemingly simple question. One broad consensus that has emerged over the years from such endeavors is that the kernel of the problem appears to consist in the speaker's ability to assess the addressee's knowledge state vis-à-vis intended referents (i.e. whether or not such referents are "definite," or known to the addressee), as well as the issue of whether the speaker has existing, concrete representations of intended referents (i.e. whether such referents are "specific" or "nonspecific"). Yet, accounts of the article system based on these basic insights have fallen short of providing a panacea for learners of English and a truly effective method of teaching article usage still remains the Holy Grail of pedagogical grammar. The reason for this presumed failure, I submit, resides not so much in practitioners' inability to translate the findings in article research into comprehensible instructional materials, but rather in the inadequacy of existing theories themselves, which are ill-equipped to capture subtle aspects of scene construal signaled by different uses of the articles. What is particularly missing is the recognition that nominal constructions determined by articles not only convey how we construe designated referents but also how we construe ourselves as conceptualizers, rather implicitly, in relation to those referents. This is an aspect of nominal reference that is especially difficult to grasp within the "objectivist" view of language

exemplified by traditional approaches to the article system.

This short study is a modest attempt to help narrow this gap by exploring the possibility of positing a more "embodied" basis for the article system that has the potential of accounting for the subtler facets of scene construal in linguistic communication. More specifically, given the extensive role of perception in shaping human cognition and language abilities as it specifically relates to nominal reference phenomena, distinct "viewing arrangements" signaled by different determiners, including the definite article, are proposed as manifestations of the fundamentally complementary interaction between perception of the external world (exteroception) and self-perception (proprioception).

Embodied Experience and Perceptual Basis of Meaning

What is needed, to begin with, is an explicitly more embodied model of "scene" understanding in reference coordination to offer an experientially grounded explication of how the article system can be acquired and put to use in linguistic communication. Of particular relevance here are some notions articulated in ecological psychology (Gibson, 1979; Honda, 2005) and their interface with Cognitive Grammar (Langacker, 1987, 1991, 1996, 2001, 2002, 2004, 2008), a rigorously constructed theory of language situated within the broader paradigm of Cognitive Linguistics that accounts for human linguistic capacities primarily on the basis of general human perceptual and cognitive abilities.

Ecological Psychology and Cognitive Grammar

Linguistic forms often impart information that is not explicitly encoded in the language itself. The definite article *the* designates a schematic thing, but it also indicates, covertly, how the depicted entity is situated with regard to the ground—a process called "grounding" in Cognitive Grammar (Langacker 2002, 2004, 2008)—whereby the ground is constituted by the speaker, the listener(s), and their immediate surroundings. In prototypical cases, it tacitly signals that the speaker believes that the listener can establish mental contact with the designated entity, but this conceptual configuration (a triangulation of sort), does not explicitly figure at all in language. The definite article *the*, however, does tell the interlocutors that the depicted conceptual scene has to be experienced in a certain way from a certain perspective (Langacker 2004). These basic insights in Cognitive Grammar about subjective (hence often implicit) aspects of meaning construction that arise ultimately from our embodied experience have recognizable affinities with many of the findings about human perception within the framework of ecological psychology, one of whose founders is James J. Gibson. Gibson (1979) claims that perceiving the self is an inevitable counterpart of perceiving the environment. My basic contention here is that Gibson's insight is relevant to the question of how the "ground" (the speech event and its participants – and their "selves") is construed in linguistic conceptualization of various scenes, and hence the issue of definiteness. Although my observations are necessarily programmatic and thus lack direct empirical support, I argue that new perspectives derived from ecological psychology shed revealing light upon some of the less understood aspects of definiteness phenomena and the English article system.

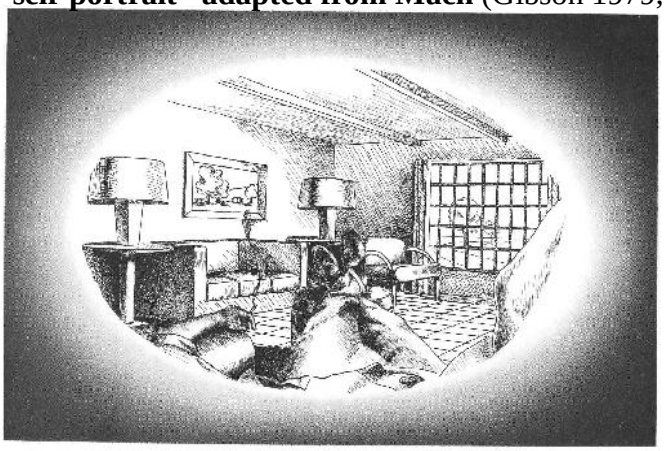
Perceiving the Environment and Perceiving the Self

Perception of the environment surely gives us rich information about entities in the external world. At the same time, however, such ecological perception also entails

co-perception of the "self" and thus reveals oft-hidden facets of own subjective experience. For instance, Lee and Aronson (1974), in a famous "moving room" experiment, showed that external visual information may affect the posture of infants who have much less sophisticated inferential abilities than adults. In this experiment, babies who had just recently learned to stand were tested on a motionless floor, within a movable room. The infants faced the interior end wall, and the whole structure, except the floor, was moved so that the end wall approached or receded. Interestingly, the infants compensated for a nonexistent loss of balance signaled by the optic flow pattern and fell in the direction of the optic flow. If the end wall moved slightly away from the baby, the infant fell forward, and if the wall moved slightly toward the baby, the infant fell over backward. This shows that the infants' coperceived changes in their own position when visually perceiving the movement of the wall, and fell down as a result of their knee-jerk attempt to adjust their postural position accordingly. In other words, perceptual information about the external world (i.e. extroception) affected their postural behavior (i.e. proprioception). The kind of spontaneous postural adjustment exhibited in this experiment despite no change or external force to one's own body further attests to the fundamentally multimodal (and thus redundant) nature of human perception and cognition (Gibbs, 2006).

The following drawing is an updating of Ernst Mach's work in the 1880s entitled "The Visual Ego," and shows a cross-section of the field of view of the left orbit of a human observer. Notice that the drawing depicts an "objective" scene viewed by a particular observer (extroception), but it also reveals where the perceiving ego is located and the vantage point from which the ego is perceiving the scene with a particular orientation (proprioception). In that sense, it is possible to see this as a kind of "self-portrait."

Figure 1. A"self-portrait" adapted from Mach (Gibson 1979, p. 11)



Likewise, language often signals this sort of complementarity between perception of the "objective" external world and self-perception. Consider the following examples.

(1) a. John disappeared from the room, muttering something.
b. John emerged from the room, muttering something.

These sentences describe John's "objective" behavior as seen from the speaker's perspective, and no explicit information about the speaker's location is linguistically encoded. However, they clearly reveal where the speaker (the ego) is located with respect to the room. In (1a), the speaker is believed to be inside the room, watching John go out, while in (1b) the speaker is believed to be outside of the room, watching John come out. Verbs like *disappear* and *emerge* thus signal not only the visual perception of an external entity's movement but also the speaker's relationship to the entity and his subjective experience of the depicted scene as well.

In that sense, they are fundamentally "deictic" in nature, as are verbs like *come* and *go* and grounding elements like demonstratives and the definite article. It is worth remembering here that the definite article *the* evokes the ground as the implicit deictic center for interpreting the intended referent. Consider another example slightly modified from Talmy (2000, p. 68).

(2) She sat in the rocker near her bed and looked out the window. How lovely the flowers were!

Talmy gives the following explanation for this mini-narrative:

> In the first sentence, the use of a third-person pronoun together with the objective scene description invites the listener to place his perspective point somewhere in the depicted room looking at the sitting woman. But in the second sentence, the exclamatory *how*-construction, together with the expression of subjective experience, induces the listener to relocate his perspective point to the location of the sitting woman, in effect, looking out through her eyes. (Talmy, 2000, pp. 68-69)

It is indisputable that the exclamatory *how*-construction is the primary factor in inviting this perspective point shift. However, I would argue that the use of the definite article in *the flowers* is also a crucial contributing factor that allows the listener to "experience" vicariously the subjective perception of the depicted scene by the sitting woman in the room, thereby revealing a "proprioceptive" facet of the surrogate ground (i.e. the woman in the room).

With respect to the relationship between perception of the environment and self-perception, ecological psychology thus makes the following basic observations:

1. Change in the field of view or change in how things look reveals change in one's own location or one's own state.
2. A stationary field of view or no change in how things look reveals one's stationary location in the immediate environment.
3. How events look reveals how one's agency might be involved in such events

(Honda, 2005, p. 16)

Given these basic observations and the central tenets of Cognitive Grammar (Langacker, 2008), it is not entirely unreasonable to suppose that ways in which the conceptualizer views the "field of view" will have profound implications for language use, in particular, how "grounding" (Langacker, 1991, 2004) manifests itself, as will be examined later.

Kinds of Self and the "Zero Form" Principle

In explicating the role of the perceiving self in ecological and interpersonal perception, Neisser (1988) proposed five kinds of self-knowledge that pertain to different facets of how one perceives oneself:

(3) Five kinds of self-knowledge (Neisser, 1988, p. 38)

> The ecological self is the self as perceived with respect to the physical environment.
> The interpersonal self, which appears from earliest infancy as the ecological self does, is specified by species-specific signals of emotional rapport and communication with conspecifics.

> The extended self is based primarily on our personal memories and anticipations.
> The private self appears when children first notice that some of their experiences are not directly shared with other people.
> The conceptual self, or "self-concept," draws its meaning from the network assumptions and theories in which it is embedded, just as all other concepts do.

Of these kinds of self-knowledge, the ecological self and the interpersonal self are particularly deemed important in investigating linguistic manifestations of perceptual information (Honda, 2005). The kind of self perception we examined in the previous section pertains mostly to the ecological self, which is the self as directly perceived vis-à-vis the immediate physical environment. Consider the following example.

(4) Kyoto is approaching. (Honda, 2005, p.26)

Here, the city of Kyoto is an immovable geographical expanse. The sentence, however, is depicting a dynamically changing scene as seen by the ecological self (of the speaker by default but it could be the ecological self of some protagonist in a story or the collective self of both speaker and hearer ("us")). Notice that the ecological self is not expressed explicitly in the sentence but its existence is prerequisite for understanding the depicted scene. A similar observation can be made in linguistic phenomena related to what is widely known in Cognitive Linguistics as "fictive motion" or "subjective scene" (Talmy, 2000; Langacker 1987; Matsumoto, 1996).

(5) There is a house every now and then through the valley. (Langacker, 1991, p. 501)

In this example, there are clearly multiple houses in the depicted scene, but the singular form *a house* is used. This is because the sentence "presupposes a viewer in motion through the valley who reports on the scene that appears within the immediate viewing frame as the journey progresses" (Langacker, 1991, p. 501). In other words, this is a report of a dynamically evolving scene being captured within the field of view of the moving ecological self, who remains "offstage."

The interpersonal self, also directly perceived, is established by species-specific signals of rapport and communication. The interpersonal self pertains most saliently to various politeness phenomena, where different linguistic forms are employed to convey one's intended meaning.

(6) a. It's such an honor to meet you, Professor Einstein. (from a student to a professor).
b. Hey, Albert! (as a close friend)
c. ?It's such an honor to meet you, Ms. Smith. (an adult talking to a 3-year-old)

Again, the interpersonal self receives no explicit linguistic expression here and yet the linguistic forms employed reflect how the interpersonal self is construed with respect to the addressees in these situations. According to Neisser (1988), the ecological self and the interpersonal self appear very early in infancy (at least from 3 months old) and they are believed to be integrated into what Honda (2005) calls the "directly-perceived self" at around age one. I will refer to this kind of integrated self-knowledge as the "perceptual self" because it is fundamentally based on perceptually available information, of both an ecological and an

interpersonal nature. In connection with the relationship between the ecological self and the interpersonal self, Neisser (1988, p. 46) points out: "Awareness of the interpersonal self is almost invariably accompanied by a simultaneous awareness of the ecological self. A wealth of information specifies their co-existence: I can see that the person to whom you are addressing yourself (the interpersonal me) is the very person who is located here, at this point of observation in this environment (the ecological me)."

These examples point to the existence of a perceptually based principle in language use, which I will call the "Zero Form" Principle (adapted from Honda, 2005, pp. 25-26): In language, only those elements that are within the field of conceptualization (parallel to the field of view, and essentially equivalent to Langacker's notion of "immediate scope" or "onstage" region) can receive phonological form. By default, the perceptual (ecological + interpersonal) self is not within the field of conceptualization (just as the viewing ego is at the extreme margins of his own field of view) and thus does not receive phonological form (i.e. has "zero" forms). Fictive motion phenomena, therefore, can be reanalyzed as manifestations of the Zero Form Principle. This does not mean, however, that everything that is related to implicit information not explicitly encoded in language pertains to the perceptual self. Furthermore, a facet of the perceptual self can go "onstage" and receive phonological form in "displaced self" situations, most notably in the use of first-person pronouns *I* and *we* and their inflected forms.

Viewing Arrangements and Determiners: An Ecological Reanalysis

The inseparable relationship between perception of the environment and self-perception outlined above has profound implications for linguistic theories that acknowledge fundamental parallels between perception and cognition. As a basic observation, specific cognitive underpinnings can be posited for certain "viewing arrangements" within the framework of Cognitive Grammar to capture how linguistic expressions signal different ways in which the conceptualizer is "viewing" the evoked conceptual scene. These different viewing arrangements pertain to two different modes of recall in episodic memory proposed by Nigro and Neisser (1983). In *observation memory* the perceptual self recalls the scene in the past from a third-person point of view, while in *field memory* the perceptual self recalls the scene as experienced by himself. Observer memory corresponds to Viewing Arrangement 1 ("Offstage" Subjective Self) and Viewing Arrangement 2 ("Displaced" Self) sketched below, whereas field memory corresponds to Viewing Arrangement 3 ("Participatory" Subjective Self). These distinct viewing arrangements are explained in the following subsections.

Viewing Arrangement 1: "Offstage" Subjective Self

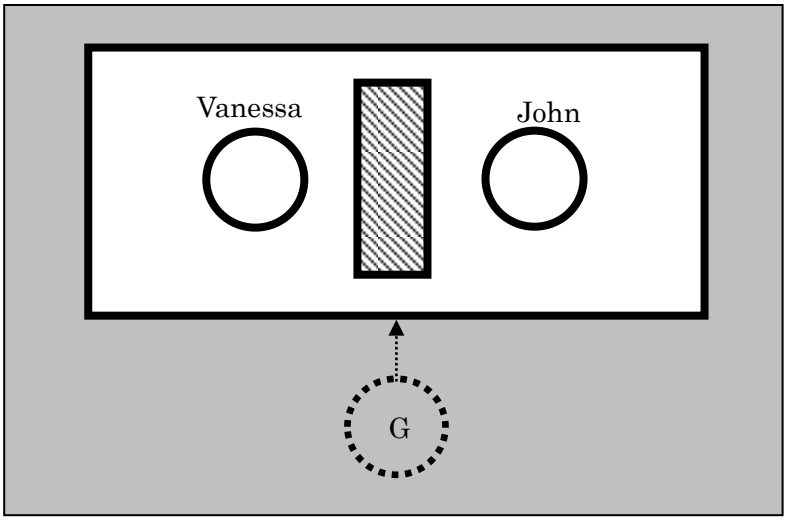
This is the most basic and "neutral" viewing arrangement, in which the perceptual self in the ground remains offstage as the subject of conception. In line with the Zero Form Principle, the self (me) receives no phonological form. Figure 1 schematically shows the viewing arrangement for the following sentence, along with its cognitive content.

(7) Vanessa is sitting across the table from John.

In this viewing arrangement, the depicted scene is construed with a high degree of objectivity, with the focus of attention almost exclusively falling upon the entities and their relationship in the onstage region. In other words, the relationship between Vanessa and John is conceived as something external to the conceptualizer in the ground, and in that sense, the conceptualizer is viewing the relationship from an "offstage" third-person point of view (hence, observer

memory). I therefore call the self perception mode in this viewing arrangement "the offstage subjective self".

Figure 2. Viewing Arrangement 1: "Offstage" Subjective Self



"Vanessa is sitting across the table from John".

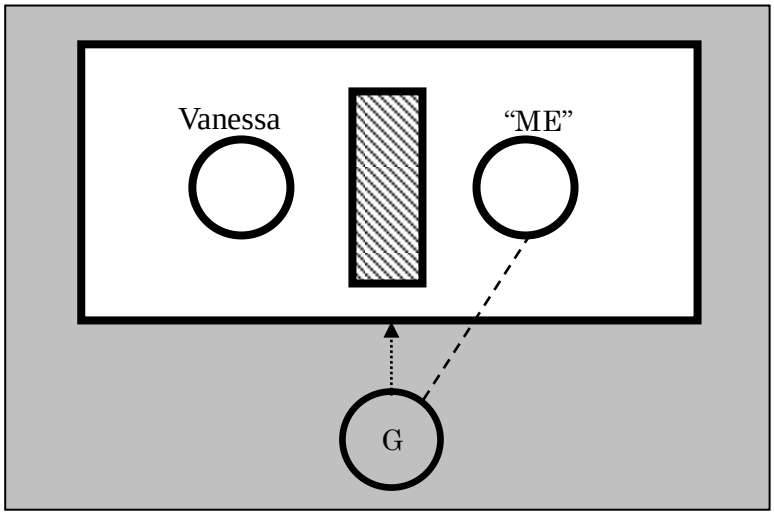
Viewing Arrangement 2: "Displaced" Self

In this arrangement, a facet of the perceptual self goes onstage as a participant in the depicted event, although the self itself remains offstage as the viewing ego. It is exemplified in the following sentence.

(8) Vanessa is sitting across the table from me.

The onstage portion of the self is thus "displaced" and construed "objectively," on a par with other referents, and receives phonological form (*me*) in line with the Zero Form Principle. This is the basic viewing arrangement for first-person references. I call the self perception mode here "the displaced self."

Figure 3. Viewing Arrangement 2: "Displaced" Self



"Vanessa is sitting across the table from me"

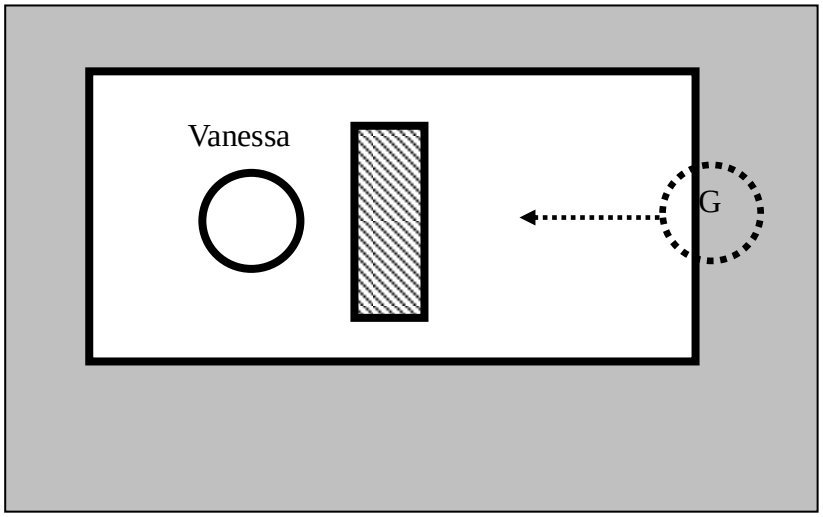
Viewing Arrangement 3: "Participatory" Subjective Self

The next category of viewing arrangement is exemplified by sentence (9).

(9) Vanessa is sitting across the table.

In this viewing arrangement (under the interpretation that the speaker is sitting across the table from Vanessa), the perceptual self is at the margin of the onstage region and has awareness that it participates in the depicted scene as an implicit or "understood" reference point. Since the self remains implicit, despite its awareness of being "in the scene," it is not explicitly expressed, based on the Zero Form Principle. I call the self perception mode in this arrangement "the participatory subjective self," reflecting the conceptualizer's role as an implicit participant in the evoked scene.

Figure 4. Viewing Arrangement 3: "Participatory" Subjective Self



"Vanessa is sitting across the table."

"Expanded Ground" for Use of the Definite Article

Now that we have laid out the basic viewing arrangements for the three different modes of self perception, of paramount interest for us now is to contemplate how these differences may relate to different types of determiners as grounding elements. My working hypothesis is as follows:

(10) Types of determiners and their default viewing arrangements:
Viewing Arrangement 1 [the "offstage" subjective self]
- possessives, except first-person (and possibly, second-person) possessives
Viewing Arrangement 2 [the displaced self]
- first-person (and possibly, second-person) possessives (as a facet of the ground is put onstage for objective construal)
Viewing Arrangement 3 [the "participatory" subjective self]
- demonstratives (with the ground serving as implicit reference point)

Possessive constructions (except first-person and second-person possessives) invoke an

entity in the onstage region as a salient reference point from which to access the target nominal referent (see Section 3.1.4.3). In *Mary's boyfriend*, for instance, Mary is picked out as a contextually salient reference point to locate the individual identified as her boyfriend. In these conceptions of nominals, the perceptual self remains offstage (hence, Viewing Arrangement 1). In first-person and second-person possessives (i.e. *my, your, our*), on the other hand, a facet of the ground is necessarily put onstage to receive an objective construal as the "displaced" self (hence, Viewing Arrangement 2). In the case of demonstratives, the ground is obligatorily implicated as a crucial reference point (or the deictic center) for locating the intended referent in an area either proximal or distal to the ground. Despite its critical role in the entire conception of the designated referent, the ground itself remains offstage and receives a very subjective construal, although there is a clear sense in which a facet of the conceptualizer in the ground is "in the scene" as the source of the directive force of pointing signaled by such demonstratives (hence, Viewing Arrangement 3). The remaining question is how we can characterize the viewing arrangement signaled by the definite article, as exemplified by the following sentence.

(11) The president is sitting across the table from Hillary.

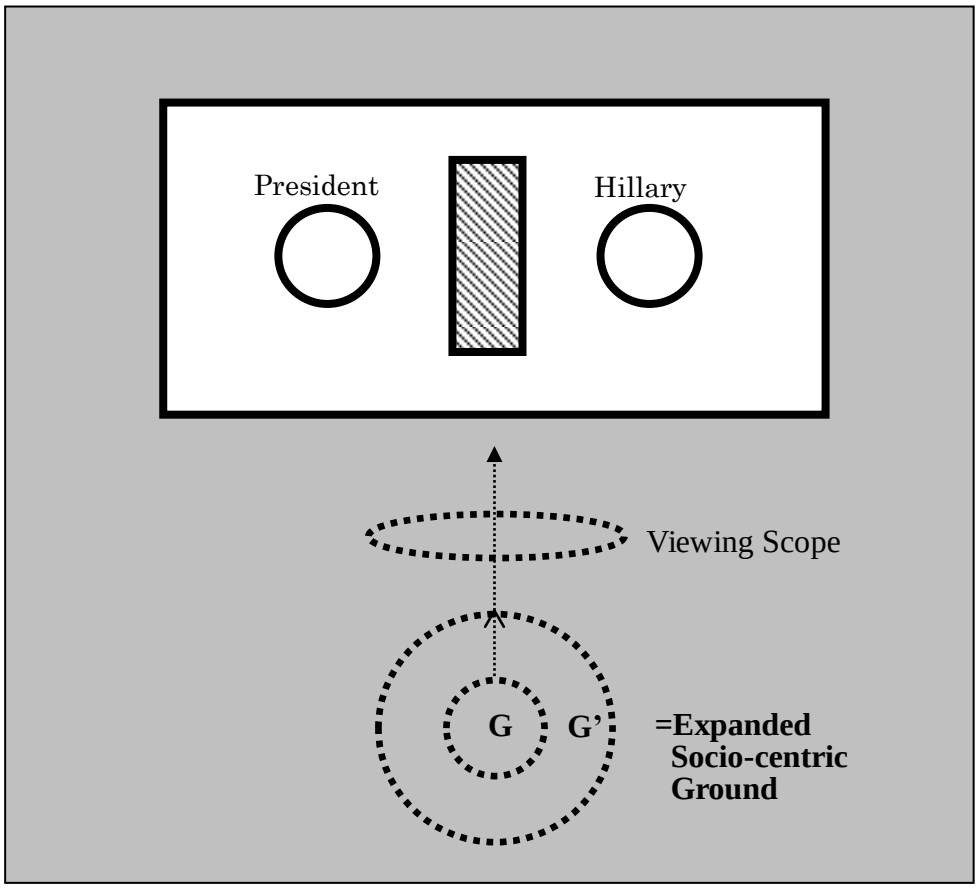
Since the definite article *the* is widely believed to have developed historically from the precursor of the distal demonstrative *that* (e.g. Spamer 1979), the viewing arrangement through which the definite article is construed seems to be closest to Viewing Arrangement 3, with the ground serving as implicit reference point for locating the intended referent (i.e. the speaker and hearer in the offstage region coordinate "mental contact" with the same referent). However, in construing *the*-marked nominal predications, the implicit reference point invoked seems to go beyond the immediate participants (speaker and hearer). In almost all cases, adequate understanding of *the*-marked definite descriptions presupposes a rich archive of patterned knowledge structures ("frames," "ICMs," discourse conventions, etc.) sufficiently shared by members of the same speech community.

This suggests that the viewing arrangement evoked by *the* seems to involve an extension of what Laury (2002) calls "the sociocentric ground" (i.e. a contextual reference point dynamically constructed by the speech participants), in the sense that other members of the speech community are also intimated in the offstage background as co-conceptualizers. Without the (even rudimentary) awareness that culturally entrenched frames and cognitive models are shared by members of the same speech community and are equally available to the speech participants, it would be difficult to coordinate mental contact with the referent designated by a given definite description marked by *the*. Children's difficulty with learning the definite article may stem, at least partly, from this special viewing arrangement (while other factors would likely include a long time period needed to acquire sufficient encyclopedic knowledge base prerequisite for understanding cultural frames, as well as the difficulty in assessing others' knowledge states, as will be discussed below). I therefore propose the following viewing arrangement for the definite article *the*.

To sum up, the ground remains offstage and thus receives "zero" form in default situations. Yet grounding predications (i.e. articles, demonstratives, possessives, etc.) signal how the intended referents are related to the ground in given scenes with particular viewing arrangements. Demonstratives like *this* and *that* put onstage their directive force of pointing (by the conceptualizer), while keeping the ground itself offstage [Viewing Arrangement 3]. Some semblance of the ground (the conceptualizer) goes onstage as the source of the directive force. On the other hand, the definite article, with its fully attenuated directive force, keeps the ground fully offstage, i.e. construes the ground with a higher degree of subjectivity, since no pointing is coming from the conceptualizer (thus no phonological contrast between proximal

and distal). Further, the perceptual self (and its peer viewer) are dimly aware of other co-conceptualizers constituting an extended sociocentral ground, which gives access to contextually salient cognitive and cultural frames. From the standpoint of ecological psychology, this viewing arrangement for the definite article entails the availability of a "public" viewpoint potentially available to all members of the speech community if put in that particular context.

Figure 5. Viewing Arrangement 4: Expanded Ground



"The president is sitting across the table from Hillary."

Concluding Remarks

The "embodied" characterization of the definite article and other determiners presented above remains programmatic and largely speculative, and further research is clearly needed to establish a fuller, more unified theory of the English article system. Nevertheless, a growing body of research on the central role of subjective, sensorimotor experiences in shaping human cognition and language (e.g. Gibbs, 2006; Gibbs & Matlock, 2008; Mandler, 2004, 2010; Ziemke et al. 2007) seems to offer indications that the basic assumptions undergirding the present research are empirically and theoretically justifiable. Particularly exciting is the possible involvement of embodied "simulations" (Barsalou, 1999; Bergen, 2007; Ritchie, 2006; Zwaan, 2004) and a simulation-based model of the use of articles derived from those insights may offer a viable alternative perspective that coherently addresses many of the gaps, inconsistencies, and oversights of contemporary understanding of article usage in English.

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