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ARGUMENT PARTICIPIAL CLAUSES VIEWED AS ABSTRACT OBJECTS IN CLASSICAL GREEK

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Abstract

This article addresses the question of the motivation for using such or such argument clause type with such or such predicate in Classical Greek. I focus on participial clauses. They cannot be said to only show up in veridical environments (i.e. in environments where they denote true propositions). Rather, their distribution is constrained by the (semantic) selectional requirements of the embedding predicates. I claim that they denote events, on the basis of the fact that they are the only possible complements with perception verbs. These events can then be coerced to denote propositions (with knowledge verbs) and facts (with emotive and evaluative predicates). This coercion is possible because holders of the knowledge/ emotion attitudes have access to an event that grounds their knowledge/ emotion. In nonveridical contexts, it is this access to an event that is denied or uncertain.

Résumé

Cet article traite des conditions d'emploi de telle ou telle subordonnée complétive avec tel ou tel prédicat en grec classique. Il se concentre sur les propositions participiales. On ne peut pas dire qu'elles n'apparaissent que dans des contextes véridiques (c'est-à-dire qu'elles ne dénotent que des propositions vraies). Leur distribution repose en réalité sur les contraintes sémantiques que les prédicats matrices imposent à leur complément. Je propose qu'elles dénotent des événements, puisqu'elles sont les seules complétives possibles avec les verbes de perception. Ces événements peuvent être contraints (*coerced*) à dénoter des propositions (avec les prédicats de connaissance) ou des faits (avec les prédicats d'émotion et d'évaluation). Cette contrainte est possible car les porteurs de connaissance/ émotion ont accès à un événement qui fonde leur

connaissance/ émotion. Dans les contextes non-véridiques, c'est cet accès à un événement qui est nié ou incertain.

1. INTRODUCTION

Classical Greek¹ has many types of argument clauses, both finite (ὅτι, ὥς, ὅπως, ὁθούνεκα, interrogative, exclamative, etc.) and non-finite (infinitive clauses, participial clauses). There has been many attempts to account for this variety and find what motivates the usage of each type of clause (de Boel, 1980, Cristofaro, 1996, Faure, 2014, among many others, see Jacquinod (1999)). The difficulty resides in the fact that the distribution of these clauses does not give a straightforward account. If we look at the table under (1), we can see that each of the three most attested types of argument clauses non-uniformly distributes between at least two semantic types of predicates.

(1) The distribution of a subset of argument clauses in Classical Greek

Kind of predicates	Example	Participial clauses	ὅτι/ὥς	Infinitive clauses
Verbs of speaking	λέγω 'say'		X	X
Knowledge predicates	οἶδα 'know'	X	X	

¹ By Classical Greek I mean Attic Greek spoken and written in the Fifth and Fourth Centuries BCE. This study was run on Lysias's speeches, extended to other authors to check relevant structures thanks to the *Thesaurus Linguae Graecae*® Digital Library. ed. Maria C. PANTELIA. University of California, Irvine. <http://www.tlg.uci.edu> (access September 16th 2015).

Perception predicates	ὁράω ‘see’	X		
Verbs of thinking	νομίζω ‘think’			X
Analysis		Certainty , presupposition	Underspecified	Doubt, unverifiable

What do knowledge predicates share with verbs of speaking that allows both types to embed ὅτι-clauses, but excludes verbs of perception? Most hypotheses focus on the veridical/informational status of the subordinate clause, as sketched in the last row of the table. For example, participial clauses are taken to denote presupposed (true) or *realis* propositions. However, this does not account for the full range of their uses. The sentence (2)^{2,3} does not entail the truth of the proposition denoted by the participial clause με βουλευσάντα (i.e. that the speaker sat on the Council). Actually, the speaker points towards the opposite conclusion in his speech.

(2) Οὐδεὶς με ἀποδείξει [**τὶ βουλευσάντα**]. (Lys. 25.14.4)

‘Neither, again, will anyone prove **that I sat on the Council**’ (tr. Lamb)

In this article, I shall explore another type of explanation, namely that each type of Classical Greek embedded clauses corresponds to an *abstract object*, i.e. depends on the semantic selectional requirements of the embedding predicates, and not on the veridical/informational status of the clause in the context. For reasons of space, I shall concentrate on participial clauses and postpone the study of other types of clauses to future research.

² Translations with no further mention than the translator’s name are taken from the Perseus website. Author names are abbreviated according to the conventions of Liddell, Scott, and Jones (1996), henceforth LSJ. Relevant phrases in examples (and in translation) are in boldface.

The article is organized as follows: In section 2, I introduce the abstract objects. In section 3, I look at the syntactic distribution and specificities of participial clauses. In section 4, I focus on the variation of their semantic properties depending on the verbs that embed them. In section 5, I try to give a uniform account of participial clauses. Finally, section 6 draws some conclusions from the study and comes back to counterexample (2).

2. ABSTRACT OBJECTS

Before going any further, let us introduce the notion of abstract object. The philosophy of language has addressed the questions of what the language speaks about and of our relations towards the various entities we refer to. These relations might depend on the nature of the entity. There are many classifications of entities, one of which is that found in Lyons (1977) and sketched here under (3).

- (3) **a. First order entities:** Entities that exist in space and time. E.g. cars, stones, etc.
 b. Second order entities: Entities that happen, take place, are located in space and time. E.g. parties, wedding, situations etc.
 c. Third order entities: Entities that somehow escape space and time = **Abstract objects**. E.g. colors, propositions, qualities etc.

If we limit ourselves to third order entities, we notice that the expressions denoting abstract objects tend to be more analytical, as in (4)a, which uses a clause (in boldface) to refer to a proposition.

- (4) a. That Achilles is a coward is false.
 b. I believe **that Achilles is a coward**.

³ t_i in the example is the trace of the pronoun $\mu\epsilon$. It is only used as a descriptive device to show that the reader has to reconstruct the clause [$\mu\epsilon$ βουλεύσαντα]. Here, we need not wonder whether the word order is generated by movements or otherwise.

Actually, if we go deeper into a classification of abstract objects, we face many difficulties, such as the variety of the natures of these objects (what is common between colors and propositions?), or the difference with second order entities (events or facts are somehow located in time). However, there are means to have a clearer picture. For example, not every type of abstract objects is referred to with the same pronouns or nominal terms. Another way to tease apart the different abstract objects is to examine the propositional attitude predicates they are embedded under. Propositional attitude predicates are predicates used to describe the position of a subject with respect to an abstract object. For example, (4)b describes a belief attitude of the speaker towards the proposition that Achilles is a coward. Asher (1993) or Moltmann (2013) are recent attempts of classification. (5) gives a simplified view of Asher's classification.

(5) Asher's 1993 classification of abstract objects

a. Situation-like objects: Events, Eventualities, Situations, States of affairs

b. Proposition-like objects: Propositions, Facts, Possibilities

In this article, I shall explore the idea that participial clauses refer to a class of abstract objects by mostly looking at the semantic selection of the main predicate. But before going in this direction, we need to have a clearer view of what these predicates are and what syntactic relation participial clauses entertain with these predicates.

3. THE DISTRIBUTION OF PARTICIPIAL CLAUSES

In this section, I analyze the distribution of argument participial clauses. They appear with perception, knowledge, and emotive/evaluative predicates, three subcases that we shall look at in turn.

3. 1. Perception predicates

Syntactically, the participial clause is assigned case by the main verb (except when the subject of the main verb is the controller of the participle, a case that we examine last).

Perception predicates mostly assign the accusative as in (6), except for ἀκούω under specific circumstances.⁴

(6) Τὸν ἀνδροφόνον_i ὁρᾷ [**τι περιούντ’ ἐν τοῖς ἱεροῖς καὶ κατὰ τὴν ἀγοράν**]. (D. 23.80)
 ‘He sees **the homicide frequenting places of worship or the market**’ (tr. Murray)

There are two debates around participial clauses with perception verbs. The first debate is around the interpretation of the main verb. It changes depending on the tense of the participle. The necessary simultaneity between the perceived event⁵ and the perception induces a “determined time reference” of the participial clauses. That is why only present and perfect participles are used with perception verbs, as in (6). Interestingly, when past or future tenses show up, perception predicates cannot describe a process of perception, since perception requires direct contact. They describe a mental operation on a non-perceived, nor perceptible event, and therefore have a knowledge predicate interpretation. In (7), the process of seeing described by ἑώρα only metaphorically bears on events that have not taken place yet (future participle συμδησόμενα).

If Philippus kept on gaining ground, that would be a disaster for Athens

(7) ὅ_i ἑώρα [**τι συμδησόμενα**], ... (D. 18.63)

‘lit. (aggressions) **which** (Athens) saw **that were going to happen**’

‘(there are aggressions) which (Athens) must have long foreseen’ (tr. Vince modified)

The second debate concerns the syntactic interpretation of the participial clause as an argument clause. Recently, Basset (1999) has claimed that we are dealing with a perception of a first order entity (see section 2), to which a modifying participle is adjoined rather than with an argument clause. Duhoux (2000) argues against this view and suggests that participial clauses are

⁴ See LSJ (s.v.): ἀκούω is followed by the genitive when the noun phrase describes the source of the perceived sound, and by the accusative when the noun phrase describes the content of the sound (“c. acc. of thing heard, gen. of person from whom it is heard”).

⁵ Event is taken here as a generic term. What is said of them is probably applicable to states, and maybe to situations. But we need not go into this level of detail here.

rather structures cognate to small clauses, i.e. to predicative structures. Semantically, this latter claim is more satisfactory, since the perception is perception of an event more than perception of a first order entity. An argument for that is that you can perceive an event without perceiving the entity that carries out the event. (8) displays such a situation. Electra holds in her hands the alleged funeral urn of her brother, and is talking (somewhat ironically) about the peace of the dead, from the experience of the quiet in which she perceives that Orestes is.

(8) τοὺς γὰρ θανόντασι οὐχ ὁρῶ [τὶ λυπούμενους]. (S. *El.* 1170)

‘since I see **that the dead are relieved of pain**’ (tr. Jebb)

Let us try to roughly formalize the meaning of this sentence. Basset’s position would be reflected by (9)a, but this is not accurate, since (9)a does not say that there is visual perception. (9)a also states that there are dead who are sad (λυπούμενους), which is not implied by (8).

- (9) a. $\exists x[\neg \text{see}(\text{speaker}, x) \ \& \ x = \sigma y [\text{dead}(y) \ \& \ \text{sad}(y)]$
- b. $\exists x[\text{see}(\text{speaker}, x) \ \& \ x = \sigma y [\text{dead}(y) \ \& \ \neg \text{sad}(y)]]$
- c. $\exists x[x = \sigma y \text{ dead}(y) \ \& \ \neg \exists e[\text{sad}(e, x) \ \& \ \text{see}(\text{speaker}, e)]]$

Rather the negation οὐχ semantically bears on the participle λυπούμενους. However, (9)b is not accurate, either, since the perception would only pick up the dead that are not sad, while (8) means that all the dead are devoid of sorrow. (9)c seems closer to the meaning of (8), stating that considering all the dead, the speaker does not perceive an event where they are sad.⁶

3. 2. Knowledge predicates

Knowledge predicates assign the accusative (e.g. οἶδα ‘know’, μανθάνω ‘know, understand’, see (10)) or (more rarely) the genitive (e.g. πυνθάνομαι in its knowledge sense ‘know, be aware of’). They come in two types: veridical (entailing the truth of their complement,

⁶ For an interesting account of the relation between perceptions, events and situations, see Barwise and Perry (1983), discussed in Higginbotham (1983).

when they are not negated, e.g. ἀποδείκνυμι ‘show’, δῆλον ‘be clear/obvious’) and cognitive factive (always presupposing the truth of their complement,⁷ e.g. οἶδα ‘know’). With these predicates, participial clauses compete with ὅτι/ὥς clauses without noticeable meaning difference.

(10) Ἐκ δὴ τοῦ αὐτοῦ λόγου [τήν τε δίκην οὐκ εἰσαγώγιμον οὕσαν] μαθήσεσθε. (D. 32.2)

‘The same speech will suffice to prove to you **that his action is not maintainable**’ (tr. Murray)

3. 3. Emotive/evaluative predicates

Emotive/evaluative predicates assign the dative (e.g. ἡδομαι ‘be pleased’, as in (11)), or more controversially the genitive.

(11) Χίοισιν_i ἥσθην [τ_i πανταχοῦ προσκειμένοις]. (Ar. Av. 880)

‘**The dwellers in Chios!** Ah! I am delighted **they should be thus mentioned on all occasions**’ (tr. O'Neill)

The status of argument clauses with such predicates has been challenged. First of all, the same demonstration as with perception verbs can be done for this type of predicates, namely that we are not dealing with a participle adjoined to an NP, but with a participial clause. The second point is that such clauses are often analyzed as causal adjuncts rather than as arguments. But this issue cannot be easily settled (see Faure (2014, submitted)), and is not important here, since we are concerned in this article with the semantics of participial clauses and not with their syntax. Be they arguments or adjuncts, they still denote what the emotion/ evaluation bears on, i.e. an abstract object whose nature is under discussion here.

3. 4. Coreference between the main subject and the controller of the participle

⁷ With some reservations, see Beaver (2010).

This situation arises with all types of predicates ((12) is an example of knowledge veridical predicate, (13) is an example of an emotive predicate). In this case, the controller is not expressed and the participle agrees with the subject of the main verb (Rijksbaron, 2002). Still, we will consider that these structures are complete participial clauses and eligible to the same analysis as those we reviewed so far.

(12) Δῆλος δ' ἦν [οὕτω διακείμενος]. (Is. 12.231.1)

‘lit. I was clear being in such state’

‘Manifestly I was in such a state of mind’ (tr. Norlin)

(13) οὐκ ἄχθομαι [*pro* σ' ἰδὼν τε καὶ λαβὼν φίλον]. (S. *Phil.* 671)

‘I am not sorry **that I found you and have gained your friendship**’ (tr. Jebb)

3. 5. Intermediate Summary

In this section we saw that participial clauses may be arguments of three types of predicates. Syntactically, they vary in case, which may be due to the semantic role assigned by the embedding predicate (accusative would be related to the role THEME, dative to the role CAUSE, genitive to the role SOURCE). This difference in semantic role is probably tied to a difference in terms of semantic selection, something that is under discussion in the next section.

4. SEMANTIC PROPERTIES OF PARTICIPIAL CLAUSES

In this section, we shall try to find tests to understand what abstract object participial clauses could denote. We shall look at the semantic selection of the three classes of verbs that syntactically select for participial clauses. By semantic selection, I mean the restrictions that a predicate imposes to its arguments. For example, with an agentive verb, the semantic role [AGENT] cannot be borne by anything. It is limited to [+ animate] entity. That is why, we can say that cats or men eat, but not that #tables eat.

4. 1. Perception predicates

The determined time reference DTR /present/ of the argument of a perception verb (see above section 3. 1) indicates that it denotes a second order entity or a situation-like object. It is arguably an **event**, since events happen and we can see or hear something happening, taking place.

4. 2. Knowledge predicates

Contrary to perception, knowledge bears on something more abstract, since it is detached from space and time. We cannot say that what they bear on “happens”. Rather, they are factive or veridical, i.e. they are related to truth (see section 3. 1). This relation to truth is confirmed by the compatibility of such predicates with adverbials such as ὀρθῶς, and with embedded interrogatives.

First, in (14), the function of ὀρθῶς is to assess the relation of knowledge between the addressees (controller of εἰδότες καὶ μεμαθηκότες) and τὰ δίκαια ‘the rights of the case’. It states that the content of the knowledge regarding τὰ δίκαια is true (in a metaphorical sense, ὀρθός means ‘right, true, correct’ (LSJ s.v.)).

(14) ἀνάγκη δ’ ἐστὶν τοῖς ἐπιτηδεύουσιν ἡμῖν, ἃ συνίσμεν πολλάκις τούτου διεξιόντος ἀκηκοότες, λέγειν καὶ διδάσκειν ὑμᾶς, ἵν’ εἰδότες καὶ μεμαθηκότες ὀρθῶς τὰ δίκαια παρ’ ἡμῶν, ἂν ἢ δίκαια καὶ εὖορκα, ταῦτα ψηφίσῃσθε. (D. 36.1)

‘It is necessary for us, his friends, to state and set forth for you the facts, which we know full well from having heard him often relate them; in order that, when you have duly **learned from us and have come to know** the rights of the case, you may give a verdict that is both just and in harmony with your oaths’ (tr. Murray)

Second, the same knowledge predicates embedding participial clauses also embed interrogatives, as in (15). Answers to interrogatives are famously true or false, as shown by the brief dialogue under (16). The comment of C on B’s answer is clearly about the truth value that B assigns to the proposition ‘Peter is coming’.

(15) Τί γὰρ ἥδειν [εἴ τι κακέϊνος εἶχε σιδήριον]; (Lys. 1.42.3)

‘For how could I tell **whether he too had some weapon?**’ (tr. Lamb)

(16) A: Is Peter coming?

B: Yes.

C: You’re lying!

To explain this relation to truth, I argue that participial clauses with knowledge predicates denote **propositions**.

4. 3. Emotive predicates

Regarding emotive predicates, we cannot say that what they bear on is something that happens or takes place. This cannot be an event, since it does not have a determined time reference. This cannot be a proposition, either, since truth is not involved. First, emotive predicates do not embed interrogatives. Second, they have not the same relation to adverbs bearing on truth like ὀρθῶς. (Μηδ’) ὀρθῶς ἄχθεσθαι in (17) does not mean that the object of anger is (not) true, but that the anger itself is (not) grounded, as shown by the three translations taken from Perseus.

(17) μηδ’ οὕτως ἡγήσεται [ὀρθῶς ἄχθεσθαι]. (Thuc. 6.89.3-4)

‘He must not think **that their dislike is any better founded**’ (tr. Dent)

‘let him acknowledge **that here too there is no real ground of offence**’ (tr. Jowett)

‘let him acknowledge **that therein also he is offended without a cause**’ (tr. Hobbes)

We saw in 0 that emotive predicates mostly take participial clauses in the dative. Here, I will argue, the dative is instrumental. The embedded clauses with emotive predicates denote the cause of the emotion, which can be shown with examples like (18), where the ὅτι subordinate clause is announced by διὰ ταῦτα ‘because of that’.

(18) ἤδη δέ τινων ἡσθόμην, ὧ βουλή, καὶ διὰ ταῦτα ἀχθομένων μοι, [ὅτι νεώτερος ὢν ἐπεχείρησα λέγειν ἐν τῷ δήμῳ]. (Lys. 16.20.1)

‘I have had occasion to observe, gentlemen, that some people are annoyed with me merely (**for this reason**) [for attempting at too early an age to speak before the people]’ (tr. Lamb)

This suggests that the abstract objects denoted by participial clauses have a causal force. That is why I am going to argue that we are here dealing with facts. First, this is confirmed by cross-linguistic data. In many languages, an ‘abstract’ NP like *the fact* may be inserted between the emotive predicate and the subordinate clause (contrary to knowledge and perception verbs), as in English (19).

(19) I regret (**the fact**) that she got drunk at the party.

Second, the causal force of facts is what distinguishes them from propositions (Asher 1993). Look at (20), where the verb *result* underlines the causal force of the fact that John is crabby.

(20) **John’s crabbiness** resulted in everyone avoiding him.

Look now at (21), where a *that*-clause denotes a proposition (it is embedded under *believe*, a verb uncontroversially related to truth).

(21) John believed [that Mary was going out with another boy]. **That** made him morose and prone to sulking.

The *that*-clause seems to be referred to in the following sentence by the means of *that*. However, *that* cannot refer to the proposition believed by John. Otherwise, **this proposition made him morose* would be fine in this context. On the other hand, *this fact made him morose* is perfectly good. I shall then consider that emotive verbs embed participial clauses denoting **facts**.

4. 4. Intermediate Summary

We saw in this section that (argumental) participial clauses can denote events, facts or propositions. We also saw that facts and propositions can also be denoted by *ὅτι*-clauses (example (18)). At this point, it seems that our attempt has failed. We did not find a one-to-one relationship between participial clauses and a type of abstract object. However, we shall see in the next section that it can be rescued if we take into account the links between the three types of objects (events, facts and propositions).

5. WHAT ABSTRACT OBJECTS DO PARTICIPIAL CLAUSES DENOTE?

In this section, I shall pursue the view that events, facts and propositions are objects that are logically related and that the facts and propositions that can be expressed by a participial clause rest on events. Events are then the pivot of the explanation.

5. 1. Propositions with knowledge predicates

Let us start with knowledge predicates. If they actually embed propositions, this means that they are related to the same type of objects as *believe*. That would be confirmed by some theories where *know* is taken to mean ‘correctly believe’ (Égré, 2008). However they can be shown to be two different attitudes on the basis of examples like (22)a/b.

- (22) a. Michalis correctly thinks that Petros visited Sri Lanka.
b. Michalis knows that Petros visited Sri Lanka.

In (22)a, Michalis makes a conjecture and thinks that this conjecture is true. Michalis may have a clue (say, he saw a statue of Buddha at Petros’s place). Then the sentence states that this conjecture is correct. (22)b states that Michalis has a proof (say, he was in Sri Lanka with Petros). This means that propositions^K with knowledge predicates are possibly some other kind of entities

than propositions^B with *believe* (cf. also Moltmann 2013).⁸ I claim that the requirement for a proof with knowledge predicates indicates that propositions^K are **based on facts or events**, while beliefs are based on conjecture. That is why knowledge predicates entail the truth of their complement (i.e. are factive).

5. 2. Facts

Emotive predicates are factive too (Kiparsky and Kiparsky, 1970), i.e. their complement denotes a true proposition, or, we argued in section 4. 3, a fact.⁹ I assume that the truth or the factuality of the complement comes from the direct access to an event on which it is based. We have clues from sentences like (23), where the grievance (ἀγανακτῶ) is directly connected to the act of viewing (ὁρῶν). There is little difference between grieving to see that p and grieving that p, except for the precision of the source of the grieving.¹⁰

(23) Ἀγανακτῶ γὰρ ὁρῶν [τὴν συκοφαντίαν ἄμεινον τῆς φιλοσοφίας φερομένην], καὶ [τὴν μὲν κατηγοροῦσαν], [τὴν δὲ κρινομένην]. (Is. 15.312.1)

‘For I am grieved to see the sycophant’s trade faring better than philosophy—the one attacking, the other on the defensive’ (tr. Norlin)

5. 3. Back to participial clauses

We are still left with the issue we met in section 4. There is no one-to-one relationship between participial clauses and a type of abstract object. However, we took a step towards an explanation. Participial clauses do not denote a type of abstract objects, but abstract objects that are somehow related in the following manner (where > means ‘is based on’):

Proposition^K > Fact > Event

⁸ I shall henceforth use propositions^K to refer to the object that knowledge predicates select for.

⁹ A cognate, although different approach is found in Ginzburg (1995), Ginzburg and Kolliakou (1995) on English and Modern Greek.

¹⁰ For examples with ὅτι-clauses, see X. Cyr. 3.1.31., 4.1.14.3.

Interestingly enough, this hierarchy is independently found in Hegarty (2003, 901-908). The author uses the test of the plural/singular reference to a sum of abstract objects. A sum of propositions can be referred to by both a plural and a singular demonstrative pronoun or noun phrase (like *this (proposition)*); a sum of events can only be referred to by a plural noun phrase (like *these incidents*, and exceptionally by *this all*). Facts share with propositions the capacity to be referred to by a singular demonstrative pronoun, and with events the incapacity to be referred to by a singular noun phrase, thus being “intermediate in some way between propositions and events” (p. 908).

Therefore, participial clauses would be clauses that denote an abstract object whose existence is (directly or not) based on the existence of an event. However, that would also be the case for the *ὅτι*-clauses mentioned in example (18) and in Fn 10. Nonetheless, there are two main differences between participial clauses and *ὅτι*-clauses. First *ὅτι*-clauses do not appear with perception predicates (or the predicate gets a knowledge interpretation). Second, they are compatible with verbs of speaking, which participial clauses are not. The complement of verbs of speaking is not necessarily true. Then it cannot be said to be based on events. Rather we might tentatively say here that *ὅτι* may be nothing but a quotation marker. The presuppositional value that *ὅτι*-clauses sometimes get comes from their association with a factive verb. But this is a matter for future research.

Given that participial clauses are the only possible complement of perception verbs, I claim that participial clauses denote events that are coerced to denote facts or propositions^K in relevant environments, *à la* Pustejovsky 1993. This is borne out by the variety of complements with knowledge predicates, which can only be accounted for in terms of coercion. Knowledge predicates embed NP as well as exclamative, interrogative, *ὅτι* (declarative ?)-clauses, i.e. clauses that arguably denote respectively exclamations, questions and speech acts. However, it can be shown that they all denote propositions^K when embedded under knowledge predicates: they are all dependent on truth, and they allow for every type of coordination between them, as in (24), where an interrogative and a *ὅτι*-clause are coordinated.

Adimantos has defended the utilitarian view of justice to induce Socrates to defend the opposite view

(24) Μὴ ἡμῖν μόνον ἐνδείξει τῷ λόγῳ [ὅτι δικαιοσύνη ἀδικίας κρεῖττον], ἀλλὰ [τί ποιοῦσα ἑκατέρα τὸν ἔχοντα αὐτὴ δι' αὐτὴν μὲν κακόν, ἡ δὲ ἀγαθόν ἐστιν]. (Pl. R. 367b)

‘Do not merely show us by argument **that justice is superior to injustice**, but (make clear to us) **what each in and of itself does to its possessor, whereby the one is evil and the other good**’ (tr. Shorey)

On the other hand, knowledge (and emotive) predicates are not compatible with infinitival clauses since the infinitive signals a doubt on the reliability of the source (Kurzová, 1968).¹¹ Participial clauses are not compatible with verbs of thinking or speaking, since they signal a reliable source (a perceptible event).

6. CONCLUSION

In this article, I addressed the question of the motivations for using such or such type of complement clauses. For space reasons, I focused on participial clauses. Starting from their distribution, I showed that the relevant factor is not pragmatic. It is not the informational status of the complement clause, either. Rather, I pursued the hypothesis that complement clauses denote abstract object and found that participial clauses denote events. They thus match the selectional requirements of perception verbs. Given that emotion and knowledge are based on reliable sources, events can also be coerced to be used as facts or propositions^K. That is why we find participial clauses with emotion and knowledge predicates. This is also the reason why we do not find them with verbs of speaking and thinking (lack of reliability).

(25) is how the meaning of *know* is usually formalized (in words, ‘knowing that p’ is ‘believing that p’, p being true). I propose to amend it as in (26)¹² (in words ‘knowing that p’ is ‘having access to an event that grounds the truth of the proposition p, and believing p’).

¹¹ That does not mean that the types of complement clauses are evidential markers. See Aikhenvald (2004), on evidentiality and the (very strict) conditions for being an evidential marker.

¹² *ev* is the type of events.

$$(25) [[know\ p]] = \lambda w_s. \lambda x_e. \lambda p_{\langle s, t \rangle} \forall w'_s [w' \in Dox_x(w) \rightarrow p(w')] \ \& \ p(w) = 1$$

$$(26) [[know\ p]] = \lambda w_s. \lambda x_e. \lambda p_{\langle s, t \rangle} \exists P_{\langle s, \langle ev, t \rangle \rangle} \exists e_{ev} [access(x, e)(w) \ \& \ p(w) = P(e)(w) = 1 \ \& \ \forall w'_s [w' \in Dox_x(w) \rightarrow p(w')]]$$

Now we can come back to the counterexample to the previous approaches, repeated here for convenience as (27).

(27) Οὐδείς $\mu\epsilon\iota$ ἀποδείξει $[t_i \text{ βουλευσαντα}]$ (Lys. 25.14.4)

‘Neither, again, will anyone prove that I sat on the council.’ (tr. Lamb)

I propose to formalize it as in (28).

$$(28) [[27]]^{w_0} = \neg \exists x_e \exists e_{ev} [sit-at-the-Council(e)(s)(w_0) \ \& \ perceive(x, e)(w_0) \ \& \ \exists p \ p(w_0) = sit-at-the-Council(e)(s)(w_0) = 1 \ \& \ prove(x, p)(w_0)]$$

NB: s = the speaker

What the speaker intends to say is that the proposition^K ‘the speaker sat on the council’ is not grounded, and its truth value cannot then be established because the event ‘speaker sitting on the council’ was not perceived by the subject of the verb ἀποδείξει, and cannot be said to exist. In a nutshell, in nonveridical contexts, it is the access to an event grounding a proposition or a fact that is denied or uncertain, not the truth of the proposition or of the fact.

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