

On the Interpretation of Na-Clauses in Modern Greek: A Relevance Theoretic Approach

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Abstract

In this paper I discuss the semantics and pragmatics of some types of *na*-main clauses in MG. First, I present the data and discuss earlier attempts to define the semantics of the *na+verb* construction. Following Wilson and Sperber's (1988a) claim that certain linguistic constructions are semantically specialised for the description of states of affairs in different worlds, I argue that *na*-clauses semantically encode that the state of affairs described by the proposition expressed is located in a non-actual world. Assuming this semantics, I show that a principled account of the way in which *na*-main clauses are interpreted on particular occasions can be provided within relevance theory. In particular, I argue that the information semantically encoded by *na* contributes to the construction of a higher level explicature carried by the utterance and that various interpretations of *na*-main clauses involve inferentially enriching the concept 'non-actual world'.

I. Introduction

The *na+verb* construction in Modern Greek (hereafter MG) has recently been the subject of much research in MG linguistics. No consensus has been reached as far as the syntactic status of this construction is concerned. Veloudis & Philippaki-Warbuton (1984) analyze *na* as the marker of subjunctive mood and argue that subjunctive clauses in MG are introduced by a zero complementizer (see also Philippaki-Warbuton & Veloudis 1985, Veloudis 1985, 1987 and Babinotiis 1985). In the same vein Tsimpli (1990) takes *na* to be a modality marker. In her analysis *na* falls into the functional category of mood which selects agreement phrase and not tense phrase. Consequently, in her analysis

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subjunctives are tenseless. Efthimiou (1990) claims that *na*-clauses are infinitival (tenseless) clauses which are marked for aspect and agreement. Agouraki (UCL Ms 1990) argues that *na* is a complementizer which is followed by the indicative. In this paper I am going to refer to the *na+verb* constructions as *na*-clauses not committing myself to any of the proposed syntactic analyses.

Whatever the syntactic status of *na*-clauses may be, it is clear, especially in the case of *na*-main clauses, that they stand in semantic contrast with the corresponding non *na*-clauses¹, as the following examples show:

- (1) *na ton akous prosehtika*
 na him listen-you carefully
 'Listen to him carefully'
- (2) *ton akous prosehtika*
 him listen-you carefully
 'you are listening to him carefully'

(1) and (2) are minimal pairs: they differ only with respect to the presence or absence of the preverbal particle *na*. It follows that the striking difference in meaning between (1) and (2) as illustrated by the English glosses is due to this particle. (1) may be interpreted, depending on the context, in at least every way that the corresponding English imperative may be interpreted². Thus, the speaker may be understood as ordering, instructing, suggesting to, wanting, advising, permitting, exhorting, pleading and so on, the hearer to listen carefully to whoever 'him' refers to. (2), on the other hand, corresponds to the English indicative declarative. The speaker is simply saying that the hearer is listening carefully to whoever 'him' refers to.

The aim of this paper is to discuss the semantics of the *na + verb* construction and the way in which some types of *na*-main clauses are interpreted. In the next sections I will present the data and the semantic analysis of *na*-clauses in terms of possible worlds proposed by Veloudis and Philippaki-Warburton (1984) and Philippaki-Warburton and Veloudis (1985). I will argue that their analysis of *na*-complement clauses in terms of possible worlds could be refined and extended so as to account for *na*-main clauses as

¹Throughout this paper I am using the term 'non *na*-clauses' to refer to the so-called indicative clauses. Imperatives will be discussed later and are certainly not included in the non *na*-clauses.

²*Na*-clauses can also be used where English uses forms other than the imperative like, for example, optatives, as I will show later.

well. I will then concentrate on some types of *na*-main clauses and I will argue that to account for the full range of their possible interpretations one needs an explanatory theory of utterance comprehension. In the remainder of this paper I intend to show that relevance theory (Sperber and Wilson 1986, Wilson and Sperber 1988a) provides such a theoretical framework.

2. *Na*-main clauses: the data

In a first attempt to describe the semantics of *na*-clauses, Veloudis and Philippaki-Warbuton (1984:159-160) claim that *na*-main clauses, or in their terminology, the subjunctive mood in main clauses, "express desire or will, wondering, consent or indifference, exhortation or prohibition, wish or curse, surprise or discontent, disapproval or approval. In other words, the subjunctive denotes, one could say with respect to these sentences, the speaker's attitude towards the propositional content of his utterance. This distinguishes the subjunctive from the indicative", i.e. the non *na*-clauses, "which is the mood of reality, i.e. it expresses a propositional content (and not the speaker's attitude towards it) as real, locating it in time" (my translation).

This observation seems to be borne out by the data. *Na*-clauses do convey attitudes like the ones referred to by Veloudis and Philippaki-Warbuton (hereafter V & P-W). Let's consider some examples. Uttered in the context of an assumption like (3)

(3) The hearer doesn't want to work as many hours as he is supposed to

(4) below

(4) *na dhoulevis oso thelis*
na work-you as much as want-you
 'work as much as you want'

may be understood as explicitly communicating that the speaker is consenting to the hearer's wish to work less³. In a context where, in addition to (3), it is

³I have in mind here the Sperber and Wilson (1986), Wilson and Sperber (1990) distinction between explicitly and implicitly communicated content. The explicitly communicated content of an utterance is arrived at by inferentially enriching the linguistically encoded logical form. Thus, the explicatures of an utterance are developments of its logical form (let's assume for the sake of clarity here that every utterance encodes one logical form). The implicatures of an utterance, on the other hand, are distinct propositions inferentially derived by the interaction of information contained

mutually manifest that the speaker has authority over the hearer, she is, for example, his tutor, she may be understood as issuing him permission to work less⁴. Alternatively, if the speaker utters (4) when asked by the hearer for instructions as to how to go about his life as a student, she may be understood as advising or exhorting him to work as much as he wants and not harder. On the other hand, the non *na* counterpart clause in (5) below

- (5) *dhoulevis oso thelis*
 work-you as much as want-you
 'you are working as much as you want'

cannot be used in any of these contexts to explicitly communicate the speaker's consenting to, permitting or advising the hearer to work as much as he wants. The speaker is rather typically understood as simply saying that the hearer works as much as he likes. The verb 'saying' is used here in the weak sense of Sperber and Wilson (1986:246-7): saying that P, where P is the proposition expressed by the utterance, does not entail that the speaker commits herself to the truth of the propositional form of her utterance⁵.

A different case is illustrated by the following example. Uttered by Bill's mother in the context of an assumption like (6)

- (6) Bill had a serious car accident

(7) below may be explicitly communicating the mother's desire that her son be alive:

- (7) *na ine zodano to pedhi mou*
 na is-it alive the child of mine
 'May my child be alive'

in the proposition expressed by the utterance and contextual assumptions. On the relevance view, the derivation of both explicatures and implicatures is an inferential process constrained by the criterion of consistency with the principle of relevance.

⁴On mutual manifestness see Wilson and Sperber (1986, 1987).

⁵This definition of 'saying' is mainly motivated by metaphors and ironies. For example, when you say ironically on a cold windy winter day

(i) It's a nice day for a picnic !

you are clearly not committed to the truth of the proposition expressed. For more on this, see Sperber and Wilson 1986:246ff.

The corresponding non *na*-clause in (8)

- (8) ine zodano to pedhi mou
is-it alive the child of mine
'My child is alive'

cannot communicate explicitly in the same context that the speaker's attitude towards the proposition expressed is that of desire. In fact, (8) will typically communicate that the speaker says that her child is alive and would probably be inappropriate in the context given here.

Na-main clauses are also often used to express wishes which cannot but remain unfulfilled. For example, (9)

- (9) Na ksanageniomouna
na was born-I again
'Would that I were born again'

may be uttered by a speaker who intends to communicate her obviously impossible wish to be born again. On the contrary, in the corresponding non *na*-clause in (10) below,

- (10) ksanageniomouna
was born-I again
'I was born again'

the speaker would never be understood as explicitly communicating the wish to be born again.

The speaker's surprise, approval or disapproval may also be communicated by a *na*-main clause, as V & P-W point out. As a reply to Mary's mentioning that her boyfriend is on holiday and sends her a letter every day, (11) below

- (11) na sou stelni ena grama tin imera!
na to you send-he a letter the day
'To send you a letter every day!'

may express the speaker's disapproval given an additional contextual assumption like (12)

- (12) The speaker dislikes frequent expressions of sentimentality

In a different context where, for example, the speaker expected Mary's boyfriend to forget that Mary existed as soon as he went on holiday, (11) could convey the speaker's surprise. If, on the other hand, the speaker thinks that this

is a good sign for the way in which Mary's relationship is developing, then (11) may convey the speaker's approval. Note, that in these contexts the non *na*-counterpart clause of (11) in (13)

- (13) *sou stelni ena grama tin imera !*
 to you send-he a letter the day
 'He sends you a letter every day !'

may communicate explicitly the speaker's disapproval, surprise or approval as well⁶. What is important, however, is that while (13) may in the appropriate context communicate that the speaker believes that Mary's boyfriend sends her a letter every day, (11) can under no circumstances be taken to communicate the speaker's belief towards the proposition expressed. The same point holds with respect to the *na*-clauses in (4), (7) and (9). In no context whatsoever can it be communicated that the speaker is committed to the truth of the proposition expressed by them. By contrast, this is a possible (though not necessary, see footnote 5) interpretation for their non *na*-counterpart clauses in (5), (8) and (10).

Coming back to the claim made by V & P-W (1983) and quoted at the beginning of this section, the first point I want to make is that they use the term 'propositional attitude' in a loose way to refer both to the speaker's attitude towards the proposition expressed (eg. will, desire) and to certain speech act descriptions (eg. exhortation, prohibition). I agree with their claim that the information encoded in *na* concerns the speaker's attitude towards the proposition expressed but I am going to use this term in the sense of Fodor (1981) to refer exclusively to mental states.

Second, from the discussion of the examples in this section it does not seem to be the case, as V & P-W claim, that non *na*-clauses simply locate the described state of affairs in time without expressing a particular attitude towards it. In fact, it seems that an important difference between *na*- and non *na*-clauses is that by uttering a non *na*-clause the speaker may communicate that she believes the proposition expressed whereas this attitude cannot be conveyed by a *na*-clause⁷.

⁶The difference between (11) and (13) is that (11) can be uttered in such a context to convey the speaker's approval, disapproval or surprise towards the proposition expressed by her utterance only if it is used echoically. Echoic and in general interpretive uses of *na*-clauses lie outside the scope of this paper. I hope to give a full account of such cases in Rouchota (forthcoming). For more on interpretive use, see Sperber and Wilson 1986:224-231.

⁷A full account of the type of information about the speaker's attitude conveyed by a non *na*-clause lies outside the scope of this paper.

Third, and most important, the question is whether V & P-W's (1983) description of the interpretations of *na*-main clauses offer an adequate basis for a precise specification of the semantics of *na*-clauses. This issue will be addressed in the next section.

3. The semantics of *na*-clauses

In a later paper Philippaki-Warbuton and Veloudis (1985) offer a semantic analysis of *na*-complement clauses. First, they point out that *na*-complement clauses are syntactically different from *otippos*-complement clauses. It is shown with syntactic arguments that whereas *oti* and *pos* are complementizers introducing the complement clause that contains them, *na* is not a complementizer. It is argued instead that *na*-clauses are introduced by a zero complementizer. Second, and more important for me here, P-W & V claim that this syntactic difference between *otippos*- and *na*-complements correlates with a semantic distinction. Looking at the examples in (14) to (17) below

- (14) O Yanis kseri oti koliba
the John knows that swim-he
'John knows that he is swimming'
- (15) O Yanis kseri na koliba
the John knows na swim-he
'John knows how to swim'
- (16) O Yanis ksehase oti kolibai jimnos
the John forgot-he that swim-he nude
'John forgot that he is swimming nude'
- (17) O Yanis ksehase na kolibai jimnos
the John forgot na swim-he nude
'John forgot to swim nude'

P-W & V note that John is swimming (nude) is presented as a fact in (14) and (16) whereas it is not a fact in (15) and (17). On the basis of such examples, P-W & V argue that *na*-complement clauses describe states of affairs which are not part of "our world" whereas *otippos*-complement clauses locate the described state of affairs in "our world".

This view, which is later further explored by Veloudis (1985, 1987), is not without precedent. Christides (1984) suggests a similar semantic distinction: *otippos*-complements are said to make a claim about reality whereas *nalpou*-complements do not make such a claim.

An argument in favour of the semantics proposed by P-W and V is, as they themselves point out, that *na*-complement clauses are not tensed: their time interpretation seems to depend on the tense of the main clause⁴. For example,

(18) *kseri na kolibai*
 knows-he na swim
 'he knows how to swim'

(19) *iksere na kolibai*
 knew-he na swim
 'he knew how to swim'

The claim that tenseless clauses locate the described state of affairs in a possible rather than the actual world has also been put forward by Huntley (1984). Huntley distinguishes between two types of English sentences: the indicative mood type and the non indicative mood type. Indicative sentences are for him declarative sentences with a tensed verb in indicative mood. For example,

(20) He escaped from the prison two weeks ago

The characteristic semantic property of such sentences is that they involve reference to the actual world. Non indicative sentences, on the other hand, are imperatives, infinitival clauses, and sentences with the verb in the subjunctive mood. For example,

(21) To wake up at six. What an idea !

(22) Bring me the files

(23) I am anxious that she save money

⁴It is usually assumed in the literature (Tzartanos (1989), Triantafyllides (1988), see also the references at the beginning of the introduction) that *na*-complement clauses are only marked for aspect (in addition to being marked for person and number), as the following examples show:

(i) *o Yanis epimeni na kolibai*
 the John insists na swim-he[imperfective]
 'John insists on swimming (every day)'

(ii) *o Yanis epimeni na kolibisi*
 the John insists na swim-he[perfective]
 'John insists on swimming (now)'

As Huntley argues, such sentences "represent a situation as being merely envisaged as a possibility with no commitment as to whether it obtains in past, present or future in this world" (Huntley 1984:122). There are certain problems with Huntley's analysis of the imperatives (see Wilson and Sperber 1988a); what is important to me here, is that Huntley, in a way similar to P-W & V, points out that tenseless clauses locate the described states of affairs not in the actual but in some alternative possible world.

So, there is good evidence that the state of affairs described by the proposition expressed by *na*-complement clauses like those in (15) and (17) is located in a non-actual world. Moreover, if we look closely we see that the state of affairs described by the proposition expressed by the *na*-main clauses in (4), (7) and (9) repeated below

- (4) *na dhoulevis oso thelis*
 na work-you as much as want-you
 'work as much as you want'
- (7) *na ine zodano to pedhi mou*
 na is-it alive the child of mine
 'May my child be alive'
- (9) *Na ksanageniomouna*
 na was born-I again
 'Would that I were born again'

is non-actual as well. In (4) the speaker permits or exhorts the hearer to bring about the state of affairs described by the proposition 'you work as much as you want', which is at the time of the utterance still unrealised. In (7) the speaker merely hopes that a certain state of affairs holds. Given the information that her son was involved in a car accident the speaker can't conclude either that he is dead or that he is alive. It is still possible that he is all right and the speaker expresses her desire that this be the case. Lastly, in (9) the proposition expressed clearly represents a state of affairs which although conceivable is not a state of affairs in the actual world.

All this suggests to me that a unified account of the semantics of *na*-clauses is possible and that such an account should involve the notion of non-actual world.

The advantage of analyzing *na*-clauses as semantically encoding that the state of affairs described is located in a non-actual world is that it captures the intuition that the information encoded by the particle *na* concerns the speaker's attitude towards the proposition expressed. Locating a state of affairs in a non-actual world constrains the interpretation process by encouraging the hearer to derive a certain range of attitudinal descriptions like 'the speaker

wants/wishes/...' and speech act descriptions like 'the speaker advises/orders...'. while disallowing others, like 'the speaker believes...'

Now, V & P-W (1983) do not realise that locating a state of affairs in a non-actual world underlies what they call "the speaker's attitude towards the proposition expressed". So, in attempting to define the semantics of *na*-main clauses they resort to saying that *na*-main clauses express desire or will, exhortation or prohibition, wish or curse, etc. This observation is borne out by the data as I showed in section 2 but it cannot form the basis for an adequate semantic analysis of *na*-clauses for two reasons. First, it is obvious that it does not generalise over main and complement *na*-clauses. For example, in (15) the *na*-clause does not seem to convey any of the attitudes quoted above. Second, unless a multiple ambiguity is stipulated, it is not explained how a *na*-main clause may have all these different interpretations.

I am claiming that a unified account of *na*-clauses can be given if we assume that *na* encodes that the described state of affairs is located in a non-actual world⁹. The examples in (4), (7) and (9), as I suggested above, support this claim¹⁰. Moreover, I will show in the next sections that the assumption that *na*-clauses involve descriptions of states of affairs in non actual worlds provides an essential underpinning to a principled account of the way in which *na*-main clauses are interpreted on particular occasions on the basis of the context and considerations of relevance.

On making this claim about the semantics of *na*-clauses one should be aware that *na*-main clauses may be tensed. For example,

- (24) To poli na efige ke na min apoheretistikame
 at most na left-he and na not say good bye to each other
 'the worst possibility is that he left and we didn't say good-bye'

⁹In a fuller account one may need to distinguish between actual, potential, possible and desirable states of affairs and actual, potential, possible and desirable worlds. For example, in our world there is no possible state of affairs in which pigs have wings. So, 'it is possible that pigs have wings' is a false description of our world. However, it might be a true description of an actual or possible state of affairs in an alternative possible world. On the relevance view, the syntactic sentence types seem to select types of world rather than types of states of affairs.

¹⁰I should mention here that in his later paper Veloudis (1987) seems to assume seems to assume that the semantics of *na*, whether it appears in a main clause or in a subordinate one, is to indicate that the state of affairs described by the proposition expressed by the *na*-clause is "outside the set of facts (situations, etc) which constitute the actual world at the time of utterance" (p.300, my translation).

- (25) na pige o Yanis me ti Maria sto theatro ?
 na went-he the John with the Mary to the theatre
 'is it possible that John went to the theatre with Mary ?'

Does this mean that when the *na*-clause is tensed, it does not represent a state of affairs in some alternative possible world ? Intuitively, the answer is no. In this paper I will assume that the fact that *na*-main clauses may be tensed is not a problem for the semantic analysis proposed here¹¹.

In the next section I will show how the various interpretations that *na*-main clauses may carry are derived, assuming that they semantically encode that the speaker regards the world represented as non-actual. My analysis is situated within relevance theory and draws heavily on Wilson and Sperber's account of non declarative utterances (Wilson and Sperber 1988a).

3. On the pragmatics of *na*-main clauses

3.1. Enriching the concept 'non actual'

Let us consider the following situation: Peter has been working very hard and feels so fed up with studying that he considers giving it up. Jane is a very close friend of his who has been through a similar phase in the past. In the context of Peter's question in (26) Jane utters (4)

- (26) Ti na kano gia na esthantho kalitera ?
 What should I do to feel better ?
 (4) na dhoulevis oso thelis
 na work-you as much as want-you
 'work as much as you want'

According to the semantic analysis proposed in the last section, the *na*-clause in (4) encodes that the state of affairs described by the proposition expressed, namely 'Peter works as much as he wants' is located in some world other than the actual. This is of course information about the speaker's attitude towards the proposition expressed but it is much weaker than what the speaker intends to communicate. Intuitively, the speaker in (4) is understood to be advising the hearer to work as much as he feels like and not more.

¹¹Some evidence for this comes from Huntley's (1984) claim that non-indicatives lack an indexical reference to the actual world not by virtue of their lacking a time coordinate (after all they allow temporal adverbs) but by virtue of their non-indicativity. I hope to account for this problem in a more detailed fashion in Rouchota (forthcoming).

The core assumption within relevance theory is that every utterance communicates the presumption of its own optimal relevance. This means that every utterance guarantees that on a given interpretation it achieves enough contextual effects to make its processing worth while and that the recovery of this interpretation does not put the hearer to unjustifiable effort. The hearer accepts an overall interpretation if and only if it is consistent with the principle of relevance, i.e. if a rational speaker might have expected it to be optimally relevant to the hearer.

Uttering (4) the speaker expresses but does not explicate, i.e. she does not intend to communicate explicitly, the assumption in (27)

(27) Peter works as much as he wants

If this was what she wanted to communicate, then she wouldn't have used a *na*-clause at all.

The output of the linguistic decoding of (4) will be something along the lines of (28) below

(28) you work as much as you want and the world type is non actual

On the relevance view (Sperber and Wilson 1986, Blakemore 1987, Carston 1988), the schematic output of linguistic decoding is inferentially enriched to the point where it expresses the minimal proposition capable of giving rise to enough contextual effects for no unjustifiable processing effort. The processes of enrichment typically consist of the context dependent inferential processes of fixing referents, resolving ambiguities and specifying the contribution of vague terms in accordance with the criterion of consistency with the principle of relevance. So, for example, the pronoun 'you' in (28) will be set a referent, namely Peter, on the basis of the available contextual information and considerations of relevance, thus producing (29)

(29) Peter works as much as he wants and the world type is non-actual

However, (29) is still schematic. It cannot be what the speaker intended to communicate because it does not answer Peter's question. In other words, (29) does not give rise to an adequate level of contextual effects in this context and therefore does not satisfy the assumption of optimal relevance. Thus, the hearer has good reason to assume that this is not what the speaker intended to communicate and that more inferential work on his part is needed. Clearly, it is the indeterminate world type description 'non-actual' which should be further specified or enriched.

According to Wilson and Sperber (1988a), thoughts can be entertained as descriptions (i.e. truth-conditional representations) of states of affairs in

different types of worlds. Among the possible worlds there is the actual world which differs from the rest in that it is not just a conceivable world, rather it happens to be the actual one. Non-actual worlds may be desirable worlds, i.e. worlds which are desirable to the speaker or the hearer or someone else. Non-actual worlds may also be potential (Wilson and Sperber 1988:85), i.e. worlds compatible with the individual's assumptions about the actual world, which may therefore be, or become, actual themselves.

Now, in the context given above, the hearer driven by considerations of relevance will form the hypothesis that the speaker intends to communicate not just that the world in which Peter works as much as he likes is non-actual, as the semantics of *na* determine, but rather that it is potential and desirable. Clearly, there is nothing in the context in which (4) is processed that would suggest to the speaker or to the hearer that the world in which Peter works as much as he wants is not an achievable one. In fact, this world is in this context entirely under the hearer's control. Moreover, the world in which Peter works as much as he wants is desirable, because, according to the scenario given earlier, if Peter does this he will feel better towards his studies. So, in uttering (4) in this context the speaker may be explicitly communicating (30)

- (30) It is desirable and it is potential that Peter works as much as he wants

In relevance theory terms (Wilson and Sperber 1990), (30) is a higher level explicature carried by the utterance in (4). Higher level explicatures are truth-evaluable representations that the speaker intends to communicate explicitly and are formed by embedding the proposition expressed by the utterance under a propositional attitude or speech act verb. According to the proposed analysis, the information semantically encoded by *na* contributes to the truth conditions of this higher level explicature and hence to one of the thoughts communicated by the utterance but not to what is standardly taken to be the truth conditions of the proposition expressed by the utterance.

There is one more semantic indeterminacy that must be resolved here. As Wilson and Sperber (1988a) point out, desirability is a three place relation: X is desirable to Z to some degree Y. On the basis of the context and considerations of relevance, it is easy to see that the world in which Peter works as much as he likes is considered by the speaker to be quite desirable to Peter himself. After this final step of pragmatic enrichment the proposition explicitly communicated by the speaker is (31)

- (31) It is quite desirable to Peter and it is potential that he works as much as he wants

In the context described above this interpretation gives rise to enough contextual effects by answering the question in (26): if it is potential and desirable from Peter's point of view that he works as much as he wants, then this is what he should do. A rational speaker may be taken to have intended to communicate (31), not only because it gives rise to enough contextual effects but also because it does so at the minimal possible processing cost. Given that Jane has gone through a similar phase herself and therefore knows how to deal with this and given that she is very close to Peter and wants to help him, the interpretation in (31) is the most easily accessible one. The first interpretation that comes to mind and gives rise to enough contextual effects to offset the required processing effort is, according to Wilson and Sperber (1988b: 141-2), the only interpretation that meets the criterion of consistency with the principle of relevance and therefore the one the hearer should accept.

The analysis proposed here explains why, when (4) is uttered in the context given above, the speaker is understood to be advising Peter. Since the speaker communicates that the world in which Peter works as much as he likes is potential and desirable from his point of view, she is advising him to work as much as he likes. In fact the potentiality and the degree and point of view of desirability of this world is all the speaker needs to communicate. In Sperber and Wilson's terms (1986:245), advising, like predicting, is not a communicated act: you don't have to communicate that you're advising in order to advise. This is not to say that the hearer will never construct a representation like (32) below

(32) The speaker is advising me to work as much as I want

The hearer may construct such a higher level explicature when a doubt about the type of world, degree of desirability, etc. enters his mind and this is the easiest way of consciously resolving them. In other words, the speaker is expected to construct the higher level explicature in (32) if (31) is not sufficiently relevant.

The claim put forward here that because of considerations of relevance the semantics of *na* may be enriched into 'the world represented is potential and desirable' can explain a range of interpretations that a *na*-clause may have. For example, if Jane is Peter's supervisor and utters (4) in the context of (33)

(33) *Peter*: boro na doulevo so thelo?

May I work as much as I like?

(4) *Jane*: na doulevis oso thelis

na work-you as much as want-you

'work as much as you want'

she will probably be understood as issuing permission to Peter to work as much as he wants.

It is obvious again in this case that the speaker does not intend to say that 'it is non-actual that Peter works as much as he wants'. Considerations of relevance will impose considerable strengthening of the concept 'non-actual world'. Enriching the semantics of *na* into 'It is desirable to Peter and it is potential that he works as much as he wants' is in this context the most easily accessible interpretation that yields enough contextual effects, i.e. answers Peter's question. This far the interpretation process is the same as when (4) is understood as advice in the context of (26). In the context of (33), however, what is at stake is not the desirability of the described state of affairs but rather its potentiality. When Peter asks whether he can work as much as he wants, he represents a state of affairs as desirable to him but expresses doubts about its potentiality: Given Jane's authority over Peter, she may present an obstacle to its coming about. She may, for example, refuse. Thus, as Wilson and Sperber (1988a:86) put it for a similar case, Jane, uttering (4), "concedes the desirability of this state of affairs to Peter but more importantly guarantees its potentiality, thus removing the only obstacle to [Peter's working as much as he wants]". Again, the hearer will construct a separate higher level explication along the lines of (34)

(34) The speaker is allowing me to work as much as I want

only if (33) is not sufficiently relevant.

The analysis proposed here also accounts for the cases where the speaker uttering a *na*-clause expresses her will or desire that something be done. For example, when the boss wants to have a look at some files, the following exchange may take place:

(35a) *Ti na kano tora ?*

What shall I do now ?

(35b) *na mou feris tous fakelous*
na to me bring-you the files
 'Bring me the files'

Again in (35b) the speaker cannot be taken to have intended to communicate that the world in which the secretary brings her the files is non-actual. In this particular context, the world in which the secretary brings the files to her boss is clearly potential (the secretary knows where these files are, she is physically fit to carry them, this is part of her job, etc) and desirable to the speaker. So, the speaker intends to communicate (36) below

- (36) It is very desirable to the boss and it is potential that the secretary bring her the files

This interpretation satisfies the requirement of optimal relevance, since it gives rise to enough contextual effects (e.g. it answers the question in (35a)) without putting the hearer to gratuitous effort in deriving them. No other interpretation of (35b) could achieve the same effects more economically; it follows that this is the interpretation the hearer should choose.

On such an account of the *na*-clauses in MG, a reasonable explanation is given of why, in cases like (35b), the hearer will in typical circumstances do what the speaker tells him to do: the desirability of the described state of affairs to the speaker provides the hearer with a reason to bring it into existence and its potentiality guarantees the hearer's capability to bring it about. Note that when the speaker uses a *na*-clause to offer advice or issue permission, she doesn't necessarily care whether the world represented will become actual or not. On the proposed analysis this is explained by the assumption that, in these cases, the desirability point of view is resolved in favor of the hearer (cf. Wilson and Sperber's (1988a) analysis of imperatives presented below).

3.2. *Na*-clauses and the imperative in MG

In all the examples I've considered so far the *na*-clauses involve descriptions of states of affairs in potential and desirable worlds. Moreover, as illustrated in the English glosses, the *na*-clauses discussed above correspond to the English imperative. In fact, Wilson and Sperber (1988) argue that an imperative utterance with propositional content P encodes that P represents a thought entertained as a description of a state of affairs in a potential and desirable world. For example in (36),

- (36) *Peter*: Excuse me, I want to get to the station
Mary: Take a number 3 bus
 (Wilson and Sperber 1988a:80)

the imperative encodes that the proposition 'you take a number 3 bus' represents a desirable and potential world. According to this account, semantic indeterminacies having to do with the degree and the point of view of desirability of the world in which the described state of affairs is situated are resolved on the basis of the context and considerations of relevance, as I showed above with respect to the Greek examples.

Now, in MG there is a morphologically distinct imperative form which, as Wilson and Sperber's analysis predicts, encodes that the proposition expressed is entertained as a true description of a world that the speaker regards as both

potential and desirable. So, for example, the imperative in (37) below is the equivalent of (35b) above:

- (37) fere mou tous fakelous
bring-you me the files
'bring me the files'

(37) would be perfectly suitable as an answer to (35a). According to the analysis I have proposed here, (35b) is costlier to process than (37): whereas the imperative in (37) encodes that the state of affairs represented is located in a potential and desirable world, (35b) encodes simply that the state of affairs described is located in a non-actual world; this will then be enriched into 'desirable and potential' as the result of inference imposed by the context and considerations of relevance, as I explained in the previous section. Since (35b) is less explicit than (37) and therefore requires more processing effort, one would expect on the basis of the principle of relevance that it would yield some extra contextual effects¹². And indeed it does. (35b), and *na*-clauses in general when compared to their imperative counterparts, are gentler, politer, less direct, temporally more remote (cf Tzartanos 1989, Veloudis 1987). These overtones follow naturally from the semantics of *na*-clauses: because of their semantic indeterminacy *na*-clauses are less imposing than the corresponding imperatives.

As one would expect, in some contexts the use of a *na*-clause instead of an imperative is inappropriate. For example, if speaker and hearer are in danger and must run to save their lives, the speaker will most probably utter the imperative in (38) rather than the *na*-clause in (39)

- (38) treha
run-you
'run'

- (39) na trehis
na-run you
'run'

This can be easily explained within my analysis. It is clear that in this situation there is no room for politeness or indirectness; all the speaker wants to communicate is that 'it is desirable (for both of us) and potential that we run'. Given the situation, she wants to communicate this in the most straightforward and therefore easiest to process way. Thus, between the *na*-clause and the imperative construction the speaker will choose the imperative because it is less costly and doesn't give rise to unwanted effects.

¹²On degrees of explicitness see Sperber and Wilson 1986:182.

3.3. Other lines of enrichment

I have argued so far that as a result of pragmatically enriching the attitudinal information encoded by *na* a *na*-clause may explicitly communicate that the world represented is desirable and potential. One would expect that subject to particular contexts and considerations of relevance other ways of enriching the semantics of *na*-clauses should be possible. This is indeed the case as I will show in this section.

Let's say that (9), repeated below, is uttered in the context of (40) by a speaker who feels disappointed by the way her life has turned out.

- (40) Pia ine i megaliteri sou epithimia ?
What is your greatest wish ?
- (9) Na ksanageniomoun
na was born[imperfect]-I again
'Would that I were born again'

In this context (9) is felt to communicate an unrealizable wish.

According to the analysis I have proposed, (9) encodes that the world in which the speaker is born again is non-actual. Once again, the representation derived as a result of linguistic decoding does not give rise to enough contextual effects for no unjustifiable effort and therefore, according to the criterion of consistency with the principle of relevance, is not the one the speaker intended to communicate. It follows that this representation must be enriched to the point where it expresses a proposition which satisfies the level of optimal relevance. In the context of (40) the first interpretation that comes to mind is that the speaker regards the world in which she is reborn as very desirable from her own point of view. Moreover, the use of the imperfect tense in this example guides the hearer to infer that the represented world, although possible, i.e. conceivable, is not potential: the speaker believes it can never become actual¹³. So, in this case, the speaker uttering (9) is explicitly communicating (41) below

¹³Evidence for the claim that the imperfect tense indicates that the world represented is not a potential one comes from its systematic use in the antecedent of counterfactual conditionals:

- (i) An to ikscra[imperfect], tha iha pai
If I knew, I would have gone

(i) implies that the speaker didn't know. I hope to give a more detailed account of the way in which the imperfect constrains the interpretation process and interacts with modal particles like *na* in Rouchota (forthcoming).

- (41) It is very desirable to the speaker and it is not potential that she is born again

The hearer can accept this interpretation as the one the speaker intended to communicate because (41) is the minimally enriched proposition that yields a wide range of effects: it provides an answer to the question in (40) and it explains the flavour of sadness with which (9) may be uttered, it allows the hearer to make all sorts of assumptions about the degree of the speaker's depression and so on.

Note that the *na*-clause in (9) does not correspond to an imperative in English. Rather it is best translated by an optative. It follows that the analysis proposed for (9) here supports Wilson's (1990) claim that optatives represent desirable but in principle unachievable worlds. The difference is that in Modern Greek this semantic category is not encoded by a separate sentence type but is expressed by *na*-clauses.

The claim that in (9) the concept 'non-actual' encoded by *na* must be enriched into 'desirable but not potential' finds further support from the need to distinguish between examples like (9) and (7) repeated below:

- (7) *na ine zodano to pedhi mou*
 na is-it alive the child of mine
 'May my child be alive'

Uttered by a mother who has just heard that her son had a car accident (7) will be understood as a wish but a wish that can be realised, a hope. The interpretation of (7) proceeds along the lines of the other *na*-clauses discussed so far. Considerations of relevance impose the specification of the type of non-actual world the *na*-clause represents. In this case the speaker communicates that the world in which her son is alive is very desirable to her and potential, i.e. as far as the speaker can tell this world may be actual.

It is interesting that although the world represented in (7) is desirable and potential, (7) is felt to differ from examples like (35b), repeated below for ease of exposition, where the world represented has also been argued to be desirable and potential.

- (35b) *na mou feris tous fakelous*
 na to me bring-you the files
 'Bring me the files'

Note also that whereas (35b) is best translated in English by the imperative, (7) is best rendered by the hortative. The difference between (35b) and (7) seems to me to have to do with the potentiality of the world represented. In (35b) the world represented is clearly under the hearer's control; the world in (7), on the

other hand, is not under anyone's control. This observation supports Wilson's (1990) proposal that hortatives are like imperatives in that they encode descriptions of desirable and potential worlds but differ from them in that the actualization of these potential worlds is not within the power of the hearer. Again, in Modern Greek there is no separate sentence type corresponding to the English optatives; *na*-clauses are used instead.

Finally let's consider the example in (42) below

- (42) To poli na ine ikosi hronon o Yanis
 at most na is-he twenty years old the John
 'It is possible that John is twenty years old'

Let's say that (42) is uttered by someone who has met John only once. The speaker is considering possible candidates for a job, the restriction being that only people under twenty two are eligible. In uttering (42) the speaker is trying to judge John's age on the basis of his appearance and behaviour.

Once again the output of linguistic decoding highly underdetermines the proposition communicated by (42). The speaker does not intend to say that it is non actual that John is at most twenty years old. On the contrary, in the context given above the speaker has some evidence which suggests that John is twenty years old (she has met John before and remembers the way he looks). It follows that the information encoded by *na* needs to be inferentially enriched. In this context the first interpretation that comes to mind is that the thought represented by the *na*-clause in (42) is a description of a possible world: the world in which John is twenty years old is a conceivable one. This interpretation is in accordance with the criterion of consistency with the principle of relevance: it yields a wide range of contextual effects for no unjustifiable effort. For example, it yields the contextual implication that John is probably eligible for the job. No other interpretation seems to give rise to the same effects as economically, therefore this is the only interpretation which satisfies the requirement of optimal relevance¹⁴.

¹⁴Another way of translating (42) would be

- (i) John may be at most twenty years old

This example does not seem to offer itself to the proposed analysis as easily as the others. Given that examples like (42) may well be in the past tense,

- (ii) to poli na itan ikosi hronon o Yanis
 at most na was twenty years old the John
 'John may have been at most twenty years old'

4. Conclusion

Wilson and Sperber (1988a) argue that certain linguistic constructions are semantically specialised for different types of description, i.e. descriptions of states of affairs in different types of worlds. They argue convincingly against a speech act account of imperatives and interrogatives and claim that "the relation between linguistic form and force (or more generally pragmatic interpretation) is mediated by a direct semantic link between linguistic form and representations of propositional attitude" (Wilson and Sperber 1988a:86). Thus, as I showed in section 3.2, an imperative utterance with propositional content P encodes the information that P represents a thought entertained as a description of a state of affairs in a potential and desirable world.

In the same vein, I have argued in this paper that *na*-clauses in MG are semantically specialised for describing states of affairs in non-actual worlds. More technically, one could say that a *na*-clause with propositional content P encodes the information that P represents a thought entertained as a description of a state of affairs in a non-actual world. I have also shown that, assuming this semantics, one can account for various interpretations of *na*-clauses by leaving the choice of world type to pragmatic enrichment as constrained by considerations of relevance.

I have by no means dealt with all the ways in which *na*-main clauses may be used in MG. Rather, I have concentrated on those interpretations which are derived by enriching the information semantically encoded by *na*. I hope to show in later work that other uses of *na*-main clauses, like for example those involving the notion of interpretive use (see example (11)), can be satisfactorily accounted for on the basis of the semantic analysis proposed here and pragmatic considerations as viewed within relevance theory.

one could, for instance, argue that (42) represents a possible state of affairs in the actual world. In this case *na* would be taken to be a marker of epistemic modality rather than type of world. On the other hand, it could be the case that in such examples the information semantically encoded by *na*, 'the world represented is non-actual', interacts with the information semantically encoded by the declarative, 'the world represented is actual or possible' (Wilson and Sperber 1988a), yielding the reading 'it is possible that John is at most twenty years old'. The interaction of the semantics of *na* with the semantics of declaratives and interrogatives will be explored in detail in Rouchota (forthcoming).

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