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PARTICIPIAL ADJECTIVES: ENGLISH STUDENTS' PERCEPTION

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ABSTRACT

Participles can function both as verbs and as adjectives and that gives rise to many borderline cases of participial words. There have been many tests created for the purpose of distinguishing between participial adjectives and participles as verbs, but none of them are comprehensive enough for this purpose to be fulfilled. Among the two types, passive participles are semantically closer to adjectives, as opposed to active participles, whose more verbal sense lessens their adjectival potential. The present study examined how undergraduate students of English perceive active (*-ing*) and passive (*-ed*) participles and what factors influence their perception. The results showed that passive participles are considered more adjectival than their active counterparts, as well as that participles as premodifiers are considered more adjectival than the postmodifying ones.

Key words: participle, participial adjective

INTRODUCTION

The task of assigning participles a place in grammar is more complicated than it may seem. Even though they are mostly used in different types of verb phrases and thus usually considered to be verbs, their use expands onto the territory of nouns and adjectives as well, which makes their status in grammar a matter of dispute. Biber et al. (2002: 24) treat this issue as an example of "borderline cases in classifying words," while Quirk et al. (1985: 75) suggest that the mere form of the word *participle* signals that they *participate* in different parts of speech. This paper is going to deal with the adjectival function of participles and therefore with different problems of semantic, as well as of morphosyntactic nature, that this function gives rise to.

The first part of this paper discusses the participle as a word category and introduces various approaches to understanding its nature and function, while the second part offers a review of different tests for the categorization of participles that have been construed so far. The third and the fourth part of this paper deal with the adjectival function of passive and active participles respectively, and the last part presents a study on how participles are perceived by students of English.

1. WHAT IS A PARTICIPLE?

This initial account hints at the difficulty of both determining the place of participles in grammar and defining them. Haspelmath (1994: 152) states that the best way to describe participles is as "verbal adjectives," meaning that they behave like adjectives with respect to morphology and external syntax but are regularly derived from verbs. In other words, they are "verb-defined adjectives within a verbal paradigm" (Haspelmath 1994: 152). The suggestion of participles being "verbal adjectives" is confirmed by the fact that "participial *-ing* forms have the full distribution of adjectives," which means that "they can be attributive, predicative and postpositive like a normal adjective" (Lee 2007: 169). Shoemaker (1952: 2) offers a similar explanation by saying that participles are characterized by the function of an adjective and the sense of a verb. He says that the function of an adjective is a common function of the participle, which sometimes completely takes over its verbness and makes it seem "almost a pure adjective" (Shoemaker 1952: 2). Kibort (2005: par 4.2), similarly, claims that the term

participle refers to "adjectivals which are derived from verbs and are considered part of the verbal inflectional paradigm". Confirming the adjectival potential of participles, Quirk et al. (1985: 413-15) say that participles can acquire fully adjectival status, and that, according to De Smet and Vancayzeele (2015: 146), "may come at the expense of the transparent relation between a participle and the verbal stem," a proof of which is the adjective *interesting*, which "does not strongly activate the meaning of the verb *interest*". Along the lines of this issue is the fact that not all *–ing* and *–ed* adjectives are derived from verbs (Biber et al. 2002: 190), even when it might seem that we are dealing with a verbal participle that has gone through participle - adjective conversion. Since **to unexpect* or **to talent* are not verbs, it means that *unexpected* and *talented* are obviously not participles (Quirk et al. 1990: 133). Also, there is the situation when we have a corresponding verb, but with a different meaning, such as *calculating* in (1a) and (1b) (Quirk et al. 1990: 134).:

(1) a. Adjective   She is (very) calculating (but her husband is frank)

b. Participle   She is calculating (our salaries). [do not disturb her while she is doing the arithmetic]

All of this clearly indicates how complicated the relationship between verbs and adjectives in the context of participles is and suggests the importance of addressing this issue.

The basic distinction within the category of participles is between the present or active participle, and the past or passive participle (some authors emphasize the distinction between active, passive and perfect participle), both of which can derive adjectival counterparts. When this happens the form of the participle (in most cases)[1] remains unchanged, but syntactic and semantic changes make it move to a different word class. The important questions are how to determine whether a certain participle-like word we encounter in discourse is an adjective or a verb, and what the rules for conversion between these word classes are.

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[1]   Freidin (1975: 398) mentions the cases where this is obviously not the case:

adjective	passive predicate	adjective	passive predicate
open	opened	empty	emptied

2. TESTING THE CATEGORIAL STATUS OF PARTICIPLE-LIKE WORDS

Bresnan (1995) is one of the most influential linguists when it comes to trying to answer the above stated questions, even though her work has been greatly criticized (by Laczkó and Levin and Rappaport, just to mention those authors mentioned in this paper). As a basis for distinguishing adjectival from verbal participles she offers a list of general differences between adjectives and verbs (Bresnan 1995: 7-8). The first difference she identifies concerns prefixation with *un-*: adjectives, as opposed to verbs, can be negated by *un-* (happy-*un*happy), which is not to be confused with the separate verbal prefix *un-*, which reverses the action denoted by the base verb (*un*tie, *un*lock). Also, unlike transitive verbs, adjectives resist direct NP complements, (**supportive my daughter* vs. *supporting my daughter*), can be prenominal modifiers (A N vs. *V N), can be modified by *too* without *much* (*it is too flat* vs. **it is too much flat*), and they can head relative phrases beginning with *however* (*however supportive of her daughter she may have been* vs. **however supporting her daughter she may have been*). According to Bresnan (1995), these differences are actually tests which are to be employed when we want to determine whether a participle is a verb or an adjective. Furthermore, she claims that all verbal participles can become adjectives through participle - adjective conversion.

However, determining a participle's category is not as simple as explained by Bresnan; Laczkó observantly detected some shortcomings of her account. When it comes to her rule of *un-* prefixation, the test cannot be considered completely precise in determining the categorial status of "*un*-less" counterparts of *un*-prefixed words (Laczkó 2001: par. 2). He gives the example of the word *unqualified*.

> 'Given that there is no verb like **unqualify*, we have to assume that in the expression *an unqualified denial*, the word *unqualified* is an adjective: the participle *qualified* was first converted into an adjective and then (adjectival) *un*-prefixation took place' (Laczkó 2001: par. 2).

But then again, "it can be argued that *qualified* is an adjective in a *qualified tourist* and a participle in *a superbly qualified tourist guide*" (Laczkó 2001: par. 2). Laczkó also finds suspicious another one of Bresnan's rules, or rather tests - the one about adjectives, unlike verbs, being able of occurring as prenominal modifiers. He explains that it would mean "that

any participle-like word must be taken to be an adjective if it premodifies the noun head," but "it does not say anything about postmodifying elements" (Laczkó 2001: par. 2). Since even "ordinary adjectives are not obliged to a prenominal position in English," because they have to appear postnominally when they take complements (Lazckó 2001: par. 2), from Bresnan's test it would follow that *smiling* is an adjective in both (2a) and (2b) because *proud* is an adjective in both (2c) and (2d).

> (2)   a. The smiling boy
>
> b. The boy smiling at the girl
>
> c. The proud mother
>
> d. The mother proud of her daughter.

Finally, this test does not work because "certain participle-looking words have an obligatory PP [prepositional phrase] complement," which means that "the prenominal test simply cannot be applied to them" (Lazckó 2001: par. 2):

> (3) *the belonging boy vs. the boy belonging to the group

The problem with the test with *too* without *much* is that it is limited to gradable words and applies only to the predicative use (Lazckó 2001: par. 2). Instead, the author offers the test with *very/very much*, according to which a participle-like word is an adjective if it can be intensified by *very* and if it precedes the noun head; if it rather postmodifies the noun head and combines with *very much*, it is a verb (Lazckó 2001: par. 2):

> (4)   a.*I was woken up by the very crying child.
>
> b. I was woken up by the child crying very much.

However, this test has also been refuted, which will be discussed in detail later in this section.

Lastly, Laczkó deems the test in which only adjectives can head concessional relative phrases with *however* similar to the test with *too* vs. *too much*: its applicability is limited to the predicative use (2001: par. 2).

There are several other tests established by different linguists for determining a participle's category. Levin and Rappaport (1986: 626) mention the test with verbs such as *seem* and *look*, which select adjectival, but never verbal complements. In support of his claim that "in terms of semantic function, passive predicates function like adjectives rather than verbs," (1975: 398) Freidin somewhat challenges this view on the basis of examples such as (5), which clearly shows that some adjectives cannot appear in such constructions either.

> (5)   a.*The theory seems unpublished.
>
> b. The theory seems consistent.

To explain this, he proposes that "adjectival complement of *seem* must describe a quality which is accessible to direct observation," (Freidin 1975: 399) which would explain the unacceptability of (4a): it cannot be inferred that the theory is unpublished by directly observing the theory (Freidin 1975: 399). Borer (1990) also mentions the constructions with *seem* as a diagnosis for (non)adjectivehood of participles. He invokes Milsark's suggestion according to which, following from the logic of (6), *seem* should allow *V+ing* combinations even if they are not adjectives, and is thus irrelevant for determining the category of participles (Borer 1990: 99).

> (6)   John seems to dislike his son.

Freidin (1975: 398-9) tackles the tests with *very* and *extremely* similarly as he does the one with *seem*: even though passive predicates cannot take these modifiers, certain adjectives cannot either: (7) is unacceptable because it results in a semantic anomaly, i.e., it is impossible to be more or less dead.

> (7)   *The lizard was very dead.

Borer (1990: 97) comes to the following conclusion in this respect:

> 'The ability to be modified by *very* has nothing to do with their adjectival nature, since a similar contrast is attested for the verbs from which they are derived . . . The class of verbs that can be modified by *very much* is precisely the class of verbs that give rise to *-ing* adjectives that can be modified by *very*.'

She illustrates this statement by opposing (8a) and (8b) to (9a) and (9b):

> (8)   a.   This story amazed/interested/bothered me very much.
>
>   b.   A very amazing/interesting/bothering story.
>
>   vs.
>
> (9)   a.   *This car jumped very much.
>
>   b.   *A very jumping car.

All of this results in a conclusion that the tests with *seem* and *very* are not reliable for determining the categorial status of participles. Still, Quirk et al. (1985: 413-15) claim that

the ability of a premodifying participle to follow the verb *seem* in predicative position (*becoming, charming, …*) indicates that the participle is strongly adjectival.

3. ADJECTIVAL FUNCTION OF PASSIVE PARTICIPLES

Verbs and adjectives are essentially different word classes, which means that in the case of participial adjectives "the tension between the verbal semantics of the participial stem and the adjectival semantics of the syntactic slot" (De Smet and Heyvaert 2011: 473) is imminent. Laczkó (2001) addresses the question of whether all participial (verbal) elements modifying NP (noun phrase) heads in English are adjectives or whether they retain their original participial (verbal) category. He proposes that "even prenominal modifiers must be taken to be participles and not adjectives," (Laczkó 2001: par. 1.) which is contrary to what he claims many linguists believe (Bresnan, Levin and Rappaport): participle - adjective conversion in noun phrases is obligatory, meaning that participles in NP domain are "uniformly adjectives" (par. 1.). The latter proposal is going to be elaborated in the following section.

"Completedness and passivity tend to remove the verb sense from a participle" (Shoemaker 1952: 108) and thus have a substantial impact on a participle's adjectival potential. Shoemaker (1952: 108) emphasizes the variation in the sense of verbness that participles carry by saying that

> 'the ending *–ing* lends a greater verb sense than the endings *-en*, *-ed*, *-t*, and an irregular like *swept*, . . . the ending *-ed* seems to have more verb sense than the ending *-en*," while with "the old *-en* form . . . the sense of verbness has almost entirely disappeared,'

as a proof of which he gives the example of *a drunken man*. This means that passive participles are semantically closer to the adjectival slot they fill than active participles, and that makes the task of determining their category much harder. Also, he mentions that the nature of the use affects the perception of the verbal sense of a given participle: "'The split wood' has more of the verb in it than 'a split personality' has"(Shoemaker 1952: 108). Some linguists, such as Freidin, say that all past participles are in fact adjectives, (in Levin and Rappaport 1986: 623) while on the other hand there are those who have put effort into

identifying differences between the adjectival and the verbal passive, as well as those proposing the third option, a resultative participle, which is a neutral version in between the adjectival and verbal passive and makes the distinction between the latter two superfluous.

Adjectival Passive Formation (APF), thus distinguishing between verbal and adjectival passives mostly on the basis of tests like those given by Bresnan, for some authors has laid on the concept of the Theme Analysis (Theme Hypothesis). This concept has been one of the ways of accounting for the obvious differences in the adjectival potential among passive participles. It revolves around the following premise:

> 'The subject of an adjectival passive or able-adjective must be the theme of the verb from which the subject is formed' (Dryer 1985: 321).

Wasow (1980) proposes that, when converting the verb of an active sentence into an adjectival passive, there are thematic restrictions on the NP of which the adjectival passive is predicated, or, shortly – on its external argument. For example, in (10a) (Levin and Rappaport 1986: 627) "car" is the theme, following the definition according to which the theme is "the argument that undergoes the actual or abstract movement indicated by the verb or whose location is specified by the verb," (Levin and Rappaport 1986: 630) and thus eligible for becoming the external argument of the adjectival passive, as shown in (10b).

(10)   a.   Smith sold the car to the first customer.

        b.   unsold car vs. *unsold customer.

Moreover, Williams (1981) claims that adjectival passives show thematic constancy, meaning that the external argument of the adjectival passive should always be associated with the theme role. Levin and Rappaport reject this statement and show that it is not valid. Their proof is the verb *teach* in sentences such as (11a) (Levin and Rappaport 1986: 629), where both arguments can be externalized (11b) because of "the absence of clear criteria for identifying the theme of a verb" (Levin and Rappaport 1986: 630).

(11)   a.   John taught children manual skills.

        b.   untaught skills vs. untaught children

Instead, they offer another rule for APF – Sole Complement Generalization (SCG), according to which "an argument that may stand as sole NP complement to a verb can be externalized by APF" (Levin and Rappaport 1986: 631). They base this rule on dative verbs such as "feed"

(Levin and Rappaport 1986: 631). In (12a) the goal, as opposed to the theme, can be externalized: (12b).

> (12)   a. feed some cereal to the baby
>
> b. unfed baby (goal) vs. *unfed cereal (theme)

Moreover, with verbs such as "slip" (13a), (Levin and Rappaport 1986: 632) neither argument can stand alone and thus neither argument can be externalized (13b and 13c).

> (13)   a. slip a message to the spy
> b. *slip a message
> c. *slip the spy

Levin and Rappaport's (1986) further analysis of APF leads them to the conclusion that the explicit rule of externalization can be dispensed with because the externalization of an internal argument that accompanies APF is forced by general lexical-thematic properties of verbs which determine possible complement structures and possible adjectival passives. What follows from this is that only direct arguments (and they are always direct objects) of verbs can be externalized since only in that way the Projection Principle[2] and the θ-Criterion[3] are satisfied (Levin and Rappaport 1986). To illustrate this they use the verb „stuff" (Levin and Rappaport 1986: 643), which has two θ-role assignment patterns:

> A. agent *(material,* location)
>
> *stuff:*
>
> B. agent <(material), *location>.*
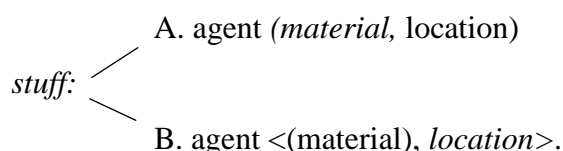
In pattern B the location theta-role is assigned directly (by the verb), while the material role is assigned indirectly (by some other theta-role assigner) and also optional, which results in the following sentences with a predicative adjective (14a) and an attributive adjective (14b) (Levin and Rappaport 1986: 643-4).

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[2]   The principle which says that representations at each level of representation are projections of the features of lexical items,notably their subcategorization features, and that if F is a lexical feature, it is projected at each syntactic level of representation (D-structure, S-structure, Logical Form). (Kerstens)

[3]   A condition which states that at D-structure each argument is in a theta-position, and that each theta-position contains an argument. If the theta-criterion is defined over LF it says that each theta-position is in a unique chain, and that each chain contains a unique theta-position. (Kerstens)

(14)   a. The pillows remained stuffed.

b. The carefully stuffed pillows.

In both cases the obligatory location theta-role (the pillows) is externalized, which means that both the Projection Principle and the θ-Criterion are satisfied thus making the sentences grammatical. They also address the issue of the exceptions to this rule in which indirect arguments are externalized, such as (15) (Levin and Rappaport 1986: 650).

(15)   The field had a marched-through look.

(They marched through the field.)

Their explanation for the indirect argument being externalized is that here the preposition is crucial for the θ-identification of the indirect argument; without it, the argument can no longer be externalized (16) (Levin and Rappaport 1986: 650).

(16)   *The field had a marched look.

Furthermore, they refute another one of Bresnan's conclusions according to which indirect arguments of intransitive verbs can be externalized if they bear the role of theme (17) (654).

(17)   wilted lettuce vs. *run man

Instead in the field of thematic relations, they find the explanation for the difference between these two examples in the difference between unaccusative[4] (*wilt*) and unergative[5] (*run*) verbs, from which follows the difference in the assignment of theta-roles thus making unaccusative verbs eligible for participle-adjective conversion, unlike unergative verbs (Levin and Rappaport 1986: 654). Finally, the absence of adjectival passives in idiom chunks, earlier also explained through the lens of the Theme Analysis, is here accounted for on the basis of the θ-Criterion:

'Since an adjective assigns an external theta-role, the position in which the external argument appears must be a theta-position, a position filled by an NP assigned a theta-role. Because of

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[4]   Special kind of intransitive verb. Semantically, its subject does not actively initiate or is not actively responsible for the action of the verb; rather, it has properties which it shares with the direct object of a transitive verb (or better, with the grammatical subject of its passive counterpart). **EXAMPLE:** in English *arrive*, *die* and *fall* are unaccusative verbs. Another term is ergative verb.

[5]   Special kind of intransitive verb. Semantically, unergative verbs have a subject perceived as actively initiating or actively responsible for the action expressed by the verb. EXAMPLE: in English *run, talk* and *resign* are unergative verbs. In syntax, unergative verbs are characterized as verbs with an external argument.

this, idiom chunks, which as nonarguments never can bear theta-roles assigned by predicates, cannot occupy this position' (Levin and Rappaport 1986: 655).

The reason (18) is ungrammatical is „the fact that *tabs*, being an idiom chunk, cannot bear the theta-role assigned by *kept*"(Levin and Rappaport 1986: 650).

(18)   *Tabs remained kept on the subject.

Once again, they conclude that "the externalization of an internal argument in APF is a by-product of category conversion, not an operation stipulated by rule" (Levin and Rappaport 1986: 658).

Dryer (1985: 325) also refutes the Theme Hypothesis and comes to a conclusion similar to that of Levin and Rappaport:

'... the subject of an adjectival passive or able-adjective must be an object of the verb from which the adjective is formed, and need not be a theme.'

The above mentioned proposition saying that indirect arguments of instransitive verbs can be externalized as long as they carry the theme role he names the Subject Theme Hypothesis and refutes it again using Bresnan's examples, but following a different logic than that employed by Levin and Rappaport. According to Bresnan (Dryer 1985: 323), (19a), (19b), and (19c) contain grammatical adjectival passives because the externalized arguments are themes, even though the verbs are intransitive.

(19)   a. a lapsed Catholic

b. risen Christ

c. an undescended testicle.

Dryer (1985: 324) claims that these adjectives "are subject to severe idiosyncratic constraints," meaning that they „do not occur naturally with other nouns" (20a,b,c) :

(20)   a. ?*an undescended curtain

b. ?the risen sun

c. ?a lapsed generative semanticist.

Furthermore, he introduces the notion of actual, possible and impossible words to provide even "stronger evidence for the exceptional nature of these adjectives" (Dryer 1985: 324):

> 'Since word formation rules are not in general fully productive, there will exist forms that could be derived by a word formation rule but are not, due to accidental lexical gaps. Such forms are possible but nonactual. However, forms will be impossible if they are nonactual and could not be derived by any word formation rule. Forms like *readable* and *breakable* are actual words; *killable* and *throwable* are possible but nonactual; *dieable* and *sleepable* are impossible.'

This is why neither (21) nor (22) are fully grammatical:

(21)   ?John managed to get across the minefield *unkilled.*

(22) *John managed to get across the minefield *undied.*

As noticed by Cetnarowska, Bresnan and Kibort, some adjectival passives in English require obligatory adverbial modification, because otherwise "they are unacceptable in a 'neutral' (non-contrastive) context" (Cetnarowska 2002: 4), as shown in (23).

(23)   * a created house vs. a carefully created house

There are two different approaches to this issue. According to the first one, the reason some adjectival passives require an obligatory adverbial is that verbs from which they are derived have two-part event structures (Grimshaw and Vikner in Cetnarowska 2002: 4). These authors explain the difference in (23) in the following way:

> 'Since the head noun *house* in the phrase *a created house* in (9a) identifies only the second subevent (i.e. the resulting state), the phrase is infelicitous in the absence of any temporal or manner adverbial which would serve to 'identify' syntactically the first subevent (i.e. the process)' (Cetnarowska 2002: 4).

The second approach proposes that "the acceptability of unmodified adjectival participles frequently depends on the noun to be premodifed" (Ackerman and Goldberg in Cetnarowska 2002: 6). According to them, the difference between (24a) and (24b) can be accounted for by means of the Non-Redundancy Constraint:

> 'If the referent of the head noun, N, implies a property P as part of its frame-semantic or encyclopedic knowledge, then an APP is not allowed to simply designate P; it must be further qualified.' (qtd. in Cetnarowska 2002: 6)

(24)   a. *paid physician

   b. paid escort

This is similar to the concept of pragmatic informativeness: "the informativeness of the APP (adjectival passive participle) *paid* is higher in the phrase *paid escort* in (24b) than in *paid physician* in (24a)" (Ackerman and Goldberg qtd in: Cetnarowska 2002: 6).

Bresnan (1995: 14) mentions pragmatic informativeness in the same context with the concept of telicity or "semantic result state," and says that they are "members of what may be a family of conditions on the use of adjectives". Telicity means that the activity has to have some kind of a goal and only such activities, or verbs, are able to form an acceptable adjectival passive (Bresnan 1995: 13). This explains why (25a) is acceptable and (25b) is not: "Because the activity of running lacks an inherent result state, it is strange to say *a run child*. But when the goal is supplied to the activity, a result state is defined, and now conversion is possible (*a run-away child*)" (Bresnan 1995: 13).

(25)   a. *a run child

   b. a run-away child

In sum, adverbial modification is necessary when the participle on its own is not able to satisfy the conditions of telicity and pragmatic informativeness. This supports Kibort's (2005: par. 4.6) conclusion that the formation of adjectival passives (she calls them resultative participles) is mainly a semantic, and not a syntactic process. Even though thematic relations also belong to the field of semantics, it has been clearly shown that they cannot provide the answers which are essential for understanding the nature and behavior of adjectival passives.

While differentiating between verbal and adjectival passives is the commonest, it is not the only way of addressing the issue of categorization of past participles. Embick (2004: 355) refers to adjectival passives as stative passives and makes a division within the category into resultative and stative passives. The emphasis here is on the end of an action, its result, or, in other words, the state it had led to, not the action itself. In his words,

‘the former type [resultative passives] refers to a state that is the result of a grammatically represented event, while the latter type [stative passives] is a simple state, much like a simple adjective’ (Embick 2004: 2).

Hirtle (1970: 7) takes the example *a fractured leg* to show that past participles as adjectives express "a state envisioned as a result," with a little sense of the action leading to that result. What he tries to convey is that we perceive *a fractured leg* as a leg having a fracture, not as a leg that had had an injury happen to:

'the past participle invokes an event as accomplished and so can call up an image of what comes after: the result phase' (Hirtle 1970:8).

As well as these semantic ones, Embick (2004: 357-360) explains the syntactic differences between resultative and stative passives . First of all, resultatives may be modified by adverbials. He employs the verb *open* to illustrate this statement and says that *a package can be carefully opened*, but not *carefully open*, the latter being a stative, although there are cases where statives allow adverbial modification, but then the resultative modified in the same way has an additional meaning (Embick 2004: 357). *The recently open door* is a grammatical construction which means that "the door was open at a recent point in the past and (probably) is no longer open," while *the recently opened door* can mean both that "the door was in the opened state recently, but probably is no longer," and that "the door is in the opened state, the opening having taken place recently" (Embick 2004: 357). Another test for distinguishing the two types of participles is to use them after a verb of creation such as *build*; when comparing the sentences *this door was built open* and **this door was built opened*, we can see that the second one "is deviant because *opened* refers to a resultative state (i.e., one that requires a previous event), and this eventive subcomponent is incompatible with the broader context," (Embick 2004: 358) even though this is much less problematic with verbs such as *closed*, in whose case the stative and the resultative have the same form (Embick 2004: 358). Also, statives, unlike resultatives, may serve as resultative secondary predicates (*John hammered the metal flat*), while the situation is reversed when it comes to prefixation with *un-*, "which is generally quite restricted with statives, but applies more or less freely with resultatives" (*unopened* vs. **unopen*) (Embick 2004: 359). The author explains that the fact that statives and resultatives previously have not always been treated as separate types is because "investigations of the different participial types have not always focused on the interpretive differences," which we could blame on the fact that the two have the same form, a very similar distribution, with the third factor being a resultative's need for a particular context (Embick 2004: 360-1).

Even though he gives the greatest attention to the differences between resultative and stative passives, the basic division Embick (2004: 355) makes is between stative passives (of which resultatives and statives are subtypes), which are adjectival passives, and eventive passives, which are verbal passives. To avoid any confusion in distinguishing the resultative from the eventive passive, which is a risk because of the sense of activity both of them carry, he says that the major difference is the presence of a *by*-phrase, or agentivity, which is possible only with eventives (Embick 2004: 364). As Quirk et al. (1990: 134) put it, "the verbal force is explicit for the *–ed* form when a *by-* agent phrase with a personal agent is present". Therefore, the participle in the sentence *The metal is hammered by John* cannot be interpreted as resultative (Embick 2004: 364).

The concept of the resultative participle is used by Kibort (2005) as well, but in a substantially different way. She claims that "an apparently 'passive' participle used as an adjective in attributive function does not have to be passive," (Kibort 2005: par. 1) which makes "the classification of participles into passive and non-passive misleading" (Kibort 2005: par. 5.2). In her system "the resultative participle is neutral between being an adjective and a verb and can be used in both functions," (Kibort 2005: par. 5.2) meaning that

'the same participial form can be used by two constructions: the morphosyntactic passive construction and the subject-complement construction' (Kibort 2005: par. 3.1).

Thus, instead of relying on the distinction between verbal and adjectival passives, she suggests the distinction between the resultative and the passive, the crucial difference between the two being the fact that

'the formation of a resultative adjective does not require the application of the passive rule or constraint, nor does it require appealing to argument structure at all' (Kibort 2005: par. 3.2).

In other words, there is one type of participle, the resultative participle, which can be used in the construction of both the passive ("a morphosyntactic operation on the argument structure of the predicate" (Kibort 2005: par. 3.2)) and the predicative adjective ("a morphological derivation of an adjective from a verb" (Kibort 2005: par. 3.2)). Therefore, the term passive participle can be used only to designate a resultative participle as a main verb of a passive construction, while

'the construction with a resultative adjective, either in its attributive or predicative use, cannot always be unambiguously assigned a passive or non-passive argument structure, nor does it need to be always unambiguously classified as passive or non-passive' (Kibort 2005: par. 6).

Kibort (2005: par. 5.2) concludes that

'all restrictions on the formation of resultative participles can be accounted for with recourse to semantics and pragmatics, while the primary constraint on the formation of the passive is syntactic.'

An issue underlying the above discussed problems is whether passivization is a lexical or a morphosyntactic process. Kibort (2005: par. 2) suggests that Bresnan's participle-adjective conversion rule "has played the key role in the argument for the lexical character of passivisation". Precisely this Lexicalist approach has been the prevalent trend in the discourse on participial adjectives and it subsumes the idea that verbal passives are formed on the level of syntax, while adjectival passives are formed on the level of lexicon (Bresnan, Wasow, Williams, Levin and Rappaport). Moreover, this approach also „naturally accounts for the fact that the participles in both uses – the verbal and the adjectival – have the same form" (Kibort 2005: par. 2).What follows from this is that passive participles convert to adjectives, "which means that there is no separate morphological rule of adjectival passivization alongside of verbal passivization," because if there were, the fact that participle and adjective passives have the same morphology "would be an unexplained accident" (Bresnan 1995: 9). Further support for this argument comes from Levin and Rappaport (1986) who say that both passives share a single morpheme. Even though within the framework of Adjectival Passive Formation adjectives are derived from verbs through a number of changes in the lexicon (affixation, category change, suppression of the verb's external argument, externalization of one of the verbs' internal arguments (cf. Embick)), Embick (2004: 356) claims that „there is no lexicon" and thus

'a distinction between lexical [for adjectival passive] and syntactic [for verbal passive] derivation cannot be the source of differences among participles". (Embick 2004: 356)

According to him syntax is "the only generative component in the grammar,' (Embick 2004: 356) and thus "a uniformly syntactic analysis of the participles is superior to the Lexicalist alternative" (Embick 2004: 355).

In principle, this is an opposition between transformational generative grammar (TGG) and lexical functional grammar (LFG). The latter sees passivization as a process taking place in the lexicon, while the former rejects this idea and sees passivization as an exclusively syntactic occurence. Even though Embick elaborates on his theory to great lenghts, the evidence given by the lexicalists is too strong to be put aside.

4. ADJECTIVAL FUNCTION OF ACTIVE PARTICIPLES

While past participles are semantically closer to adjectives and perceived as less verbal, active participles express some type of activity which gives them greater verbal force, and lessens their adjectival potential. Williams (1982: 162) goes as far as saying that "present participle is always verbal and never adjectival," and that instances where it has been lexicalized as an adjective, such as *a very demanding child*, are only exceptions. It has already been mentioned that several "semantic effects that arise from the tension between the verbal semantics of the participial stem and the adjectival semantics of the syntactic slot" can be identified (De Smet and Heyvaert 2011: 474). When in an adjectival slot, a present participle experiences two constraints – time stability and simultaneity, which comes at the expense of its progressive, verbal force (De Smet and Heyvaert 2011: 479). This means that the participle is interpreted as "unchanging over some period," and as "simultaneous with some temporal reference point" (De Smet and Heyvaert 2011: 479). Since this goes against the nature of the verbal participle, i.e., against "the often dynamic semantics of a verbal process," (De Smet and Heyvaert 2011: 480) the authors offer several strategies for solving this issue, i.e., achieving time stability and simultaneity with dynamic verbs – progressive, iterative, habitual or gnomic reading[6] (De Smet and Heyvaert 2011: 480). Depending on the participle's environment, i.e. whether it is prenominal, postnominal, progressive, integrated or a

---

[6]   Progressive construal means "zooming in on the verbal process," and making it possible for that "inner phase of a process" to be integrated "as an unchanging (if temporary) state of 'ongoingness'" by excluding the process' beginning and end, as in (26a) (De Smet and Heyvaert 480). For the remaining three types of construal, they say that they "involve some form of zooming out from the verbal process" (?). Iterative construal expresses a verbal process happening repetitively within an immediate time frame, which is represented in (26b), while habitual construal „presents the verbal process as taking place repeatedly and predictably, though without immediate temporal succession" (26c) . Finally, gnomic construal presents „the process as the predictable behaviour of a nominal referent but abstracts away from any concrete occurrences, and as such includes generic statements, as in (26d) (De Smet and Heyvaert 480).

> (26)   a. a man was pushing a safe across the road.
>   b. someone was tapping on the window
>   c. he would often come and talk to her when he had finished working
>   d. knives cut

supplementive, different illustrations of these strategies are offered (De Smet and Heyvaert 2011: 483-91).

After adducing different approaches to understanding the nature of participles, their sense of progressivity and simultaneity, they conclude that none of them are completely accurate (474-5). According to them, "the meaning of participles can be best understood against the background of the synactic slot they fill" (De Smet and Heyvaert 2011: 476). It is worth noticing how the approach they opt for is reverse to how participles are usually understood – for them, participles are not just verbs which sometimes, more or less successfully, try to be adjectives; instead, precisely adjectives are the ones that play an important role in understanding participles. In other words, in their approach, a present participle's meaning is explained and understood through its adjectival role.

De Smet and Vancayzeele (2014: 137) focus on the attributive function of the present participle and stress that "premodifying elements tend to express permanent features, while temporary features are most typically encoded by postmodifying and predicative elements". For example, adjectives such as *sorry* or *asleep* can be used only predicatively since they "denote an inherently temporary state" (De Smet and Vancayzeele 2014: 136). Apart from that, they stress one important characteristic of premodifying adjectives which projects itself on premodifying present participles:

'They typically provide information that refine the type description of the head, but some premodifying present participles gravitate towards the determiner end of the noun phrase. They often aid identification by specifying the relation between different discourse elements' (De Smet and Vancayzeele 2014: 138).

For example, in *commencement of the following March*, 'following' identifies a specific month, March, by situating it in time relative to the time whose events are the current focus of the discourse" (De Smet and Vancayzeele 2014: 138). This is the identifying use of the premodifying present participle, but many participles which usually occur in identifying use, like *following*, can also be used descriptively - *At one stage he turned the car round and rammed a* following *police car* (De Smet and Vancayzeele 2014: 137-8). Within the descriptive use, there are type-oriented and situation-oriented participles, which are explained in the following way:

'Type-oriented premodifying present participles refine or supplement the type-description of the head noun, typically delimiting a subtype of the more general type denoted by the noun.

The characteristic denoted by a type-oriented participle is therefore a permanent, intrinsic feature of the nominal referent. In contrast, situation-oriented premodifying present participles focus on how a nominal referent engages in the situation evoked by the context. Rather than denoting a permanent, intrinsic feature, situation-oriented participles typically denote temporary characteristics that hold through the duration of the main clause situation' (De Smet and Vancayzeele 2014: 139).

This latter type is where premodifying present participles diverge from the attributive adjectives' prevalent expression of permanent features (27) (De Smet and Vancayzeele 2014: 138):

> (27)   She went up to the *dripping* window and strained her eyes into the darkness.

However, the distinction within the types of premodifying present participles is not as clear cut as presented above, and De Smet and Vancayzeele (2014) go on to elaborate on various instances of overlap and ambiguity.

Laczkó (2001: par. 2) tackles the issue of the function of adjectival *-ing* participles by opposing the commonly held view represented by Bresnan (1995) and Haspelmath (1994): "All premodifying participle-looking words in English (*whether derived by* -en *or* -ing) and those postmodifying ones that are taken to be adjectives are stative". Haspelmath (qtd. in Laczkó 2001: par. 2) claims that "the fundamental (primary) function of *–ing* adjectives in the NP domain is the expression of habituality [stative characterization]," while "the current [active] use of *–ing* adjectives is only a secondary development"), with which Laczkó (2001: par. 2) disagrees by saying that his "'habitual ➔ current' directionality is counter-intuitive," since it would mean that participles had been adjectives before they became verbs, not the other way around. Instead, he takes the examples in (28) and claims that the participle-like words in them are "true participles" which are "as dynamic as their input verbs" (Laczkó 2001: par. 2).

> (28)   a. a smiling child
>   b. a fallen leaf
>   c. an opened can

Even though he agrees that (28b) and (28c) „are in a state preceded by a certain change of state," (Laczkó 2001: par. 2) he states that

'This semantics is composed of the following two major elements: *a)* the meaning of the participle, which only expresses a change of state and *b)* the meaning of the entity. From these two components the "present" state of the entity denoted by the NP (head) directly follows, but, strictly speaking, this is not the semantic function of the participle itself.' (Laczkó 2001: par. 2).

He finds the identification of *smiling* in (28a) as stative even more unacceptable, based on (29).

> (29)   When I entered, one of the children started smiling. I went up to the smiling child.

While Laczkó (2001) proposes that all participles, even the ones used prenominally, are verbs, Borer (1990: 95) presents facts which strongly go in favor of an opposite idea − that premodifying *-ing* participles are adjectives:

'If they are verbs, we must account for the obvious ways in which their distribution and properties differ from those of other verbs: normal verbs, even in their participial form, do not occur (prima facie) in prenominal positions, they can be accompanied by complements, and they do not (at least in some models) occur in non-sentential projections, or without a subject.'

The already discussed tests with *very/very much* are what she uses to illustrate this point (Borer 1990: 96).

As we have seen, in the discussion on the adjectival function of present participles, the emphasis has been put on their semantics. Nevertheless, there are several observations focusing on other aspects of this issue. When it comes to the morphology of present participles, most linguists agree on the claim that there is only one *-ing* ending in English (Lee, Milsark, Bearel, Blevins) and consequently that the adjectival *-ing* is derived from the verbal *-ing*. Lee (2007: 170) identifies two great advantages of this approach: having only one verbal suffix means that we can get adjectives from participles "for free", and, also,

'If we reserve the term 'participle' for verbs only and derive the adjectival form from the verbal form, participles no longer occupy a borderline status and are unambiguously verbs (to be precise, nonfinite verbs)'.

On the level of syntax, *-ing* participial adjectives are usually intransitive, but they can also be transitive if preceded by a direct object (*a donkey-beating man*) (Lee 2007: 170).

5. THE STUDY

5.1 Aim

The aim of this study was to look at how students of English perceive *-ed* and *-ing* participles by testing the following hypotheses:

1) *-ed* participles (passive participles) are perceived as more adjectival than *-ing* participles (active participles)
2) participles used prenominally are perceived as more adjectival than participles used postnominally.

Since there are no straightforward tests for examining the categorial status of participle-like words in English, this research focused on language intuition and was construed to test how it operates with students of English when it comes to categorizing those words. The basis for the first hypothesis was the presumption that students mostly associate the ending *-ing* with verbs, because this ending is predominantly presented as verbal while learning English as a foreign language. The second hypothesis is based on the presumption that the attributive use of adjectives is considered prototypical. The implicit hypothesis arising from these two is that students of English rely on syntax and morphology more than on semantics when categorizing participles.

5.2 Sample

The sample constisted of 113 second and third year undergraduate students of English at the Faculty of Humanities and Social Sciences in Zagreb. The participants were between 19 and 25 years of age, mostly female (67%), mostly in the second year of the undergraduate programme in English (56%), and with 10 to 21 years of learning English.

Table 1. The structure of the participants

Male	32,14%	19-22 years old	94,64%
female	66,96%	23-25 years old	5,36%
2nd year	56,25%	10-13 years of learning English	29,46%
3rd year	42,86%	14-17 years of learning English	68,75%
		18-21 years of learning English	1,79%

5.3 Instruments and procedure

The instrument used in this research was a questionnaire consisting of two parts. In the first part, the students were presented with ten sentences, each containing a participle-like word, and asked to say whether the word was a verb or an adjective. Three of the sentences were construed to test the perception of premodifying *-ing* participles, two to test the perception of premodifying *-ed* participles, three to test the perception of postmodifying *-ed* participles, and two of the sentences were fillers (they contained participles which are clearly adjectives). The second part consisted of four noun phrases, each of which contained a participial premodification, and the students were asked to say whether the participle-like word was a verb or an adjective, as well as to justify their answer. Two sentences contained *-ing* participial premodification, and two contained *-ed* participial premodification. The collected data were analyzed quantitatively and also qualitatively due to the nature of the second part of the questionnaire.

5.4 Results

In the first part of the questionnaire, the sentences used to test the perception of *-ing* participial premodification were the following:

> (30) a. In the latest caning, five people -- two women and three men -- were flogged in front of a **cheering** crowd at a mosque in the provincial capital Banda Aceh.
>
> b. She caught a coolly **calculating** glint in the other woman's eye.
>
> c. Two Staten Island Ferry boats catch the last rays of the **setting** sun while crossing paths.

Most of the participants (58.78%)[7] said that the given participles were adjectives. Female participants were more prone to this perception (60.89%) than the male ones (53.7%), as well as those in the second year of study (59.26%) when compared to those in the third year of study (56.94%). Among the students with 10 to 13 years of learning English 62.63% also said the given participles were adjectives, as well as 57.14% of those with 14 to 17 years of learning English and 50% of those with 18 to 21 years of learning English. For the sentence

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[7]   This is an average for the three sentences and the same procedure applies throughout the study.

containing *-ing* premodification which was used as a filler (31) all participants said that the participle was an adjective.

(31) "It truly is an **amazing** story," he said.

Graph 1.
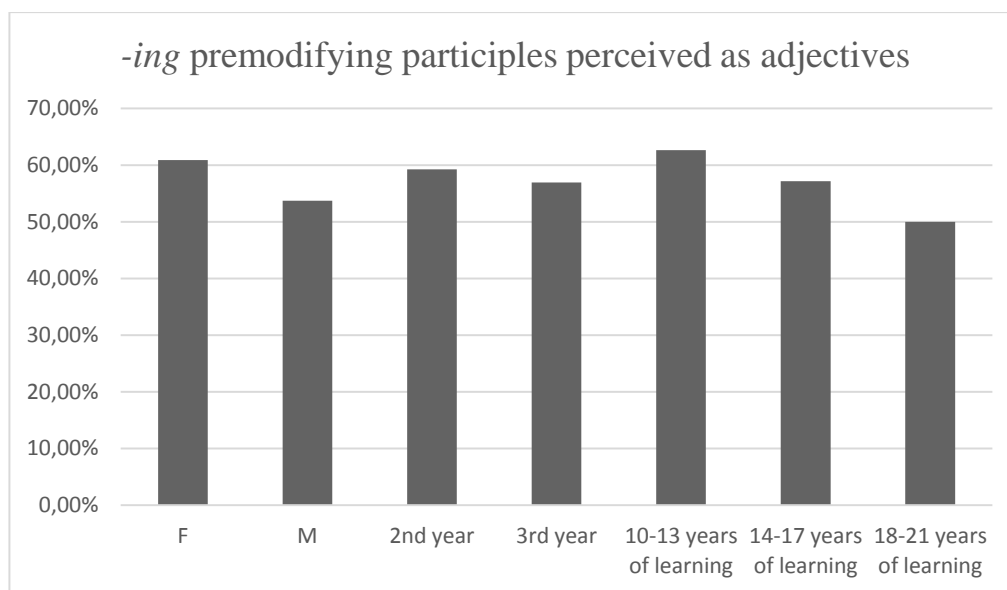
For the *-ed* premodifying participles almost all of the participants reported that they perceived them as adjectives (96.89%). The sentences used here were the following:

(32) a. No company would permit an **unqualified** accountant to audit its books.

b. You can use **peeled** tomatoes from a can, but it is usually best to use fresh tomatoes for a stronger and fresher flavor.

Again, slightly more female (97.33%) than male (95.83%) participants reported this answer. When it comes to the year of study, 96.03% of participants in the second year and 97.92% of those in the third year said that these participles were adjectives. Among the participants with 10 to 13 years of learning English 95.45% reported this answer, among those with 14 to 17 years of learning English 97.4%, and 100% of the participants with 18 to 21 years of learning English.

Graph 2.

-ed premodifying participles perceived as adjectives
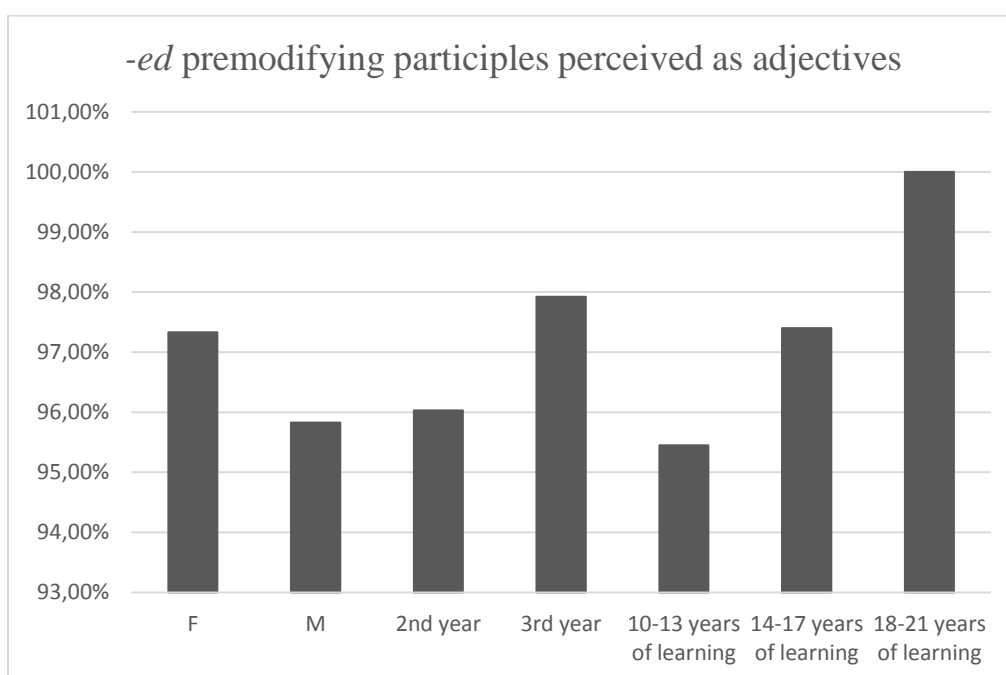
Finally, the situation was not very different with the *-ed* postmodifying participles, with 85.89% of the participants having said that they were adjectives. The following sentences were used:

(33)   a. One in two Canadians admit they were **unprepared** to manage finances heading into University.

b. Since I met you, I've felt **abandoned** without your nearness.

c. The chickenburger was very thin and **overcooked** which made it very chewy.

This time more male (90.74%) than female (83.11%) participants gave that answer, while the difference between the second (84.66%) and third (86.81%) year students was very small. The same goes for the difference between the participants based on the time of learning English; 86.87% of those with 10 to 13 years of learning, 84.85% of those with 14 to 17 years of learning and 100% of those with 18-21 years of learning English said that these participles were adjectives. What is interesting is that for the filler sentence with an *-ed* postmodifying participle (34) not all the participants said that it was an adjective; 14.29% reported that it was a verb even though it was premodified by *very*.

(34)   He was very **bored** while she was cleaning the windows.

Graph 3.

-ed postmodifying participles perceived as adjectives

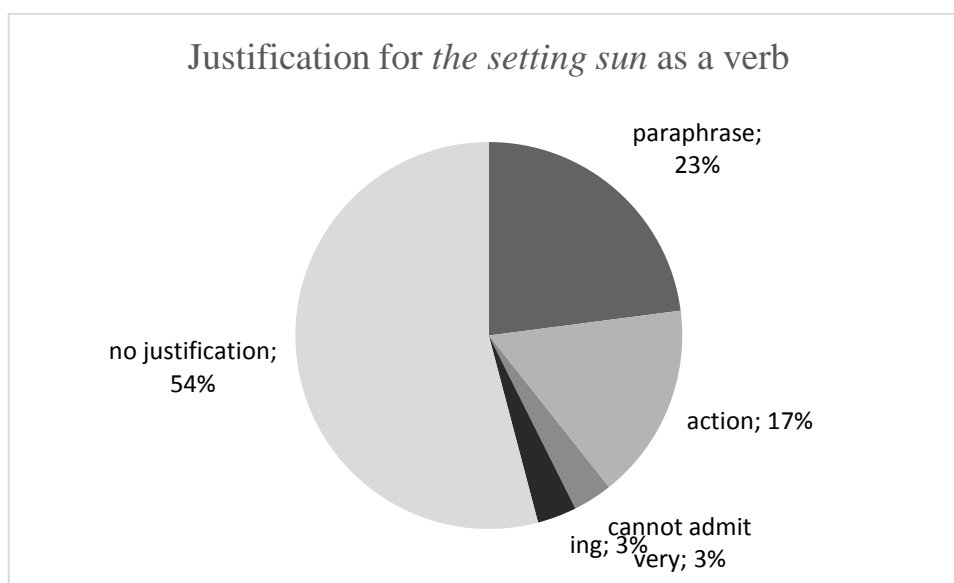| Category	Value
F	~83%
M	~90%
2nd year	~84%
3rd year	~86%
10-13 years of learning	~86%
14-17 years of learning	~85%
18-21 years of learning	100%
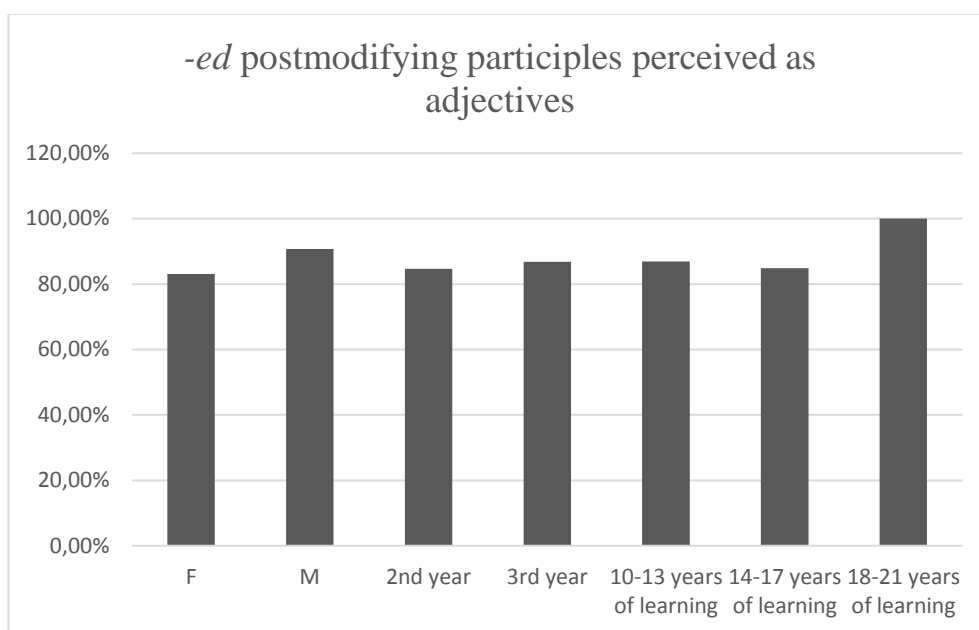
The first phrase that was tested in the second part of the questionnaire was *the setting sun*, which appeared in one of the sentences in the first part as well. The majority of the participants (54.55%) said that the *-ing* premodification in the phrase was a verb, and, surprisingly, a part of those who said that it was an adjective in the first part of the questionnaire changed their mind in the second part and said that it was a verb after all – 14.69% of all the participants did this. More male (63.89%) than female (50.67%) participants perceived this participle as a verb, and also more of those in the third year of study (58.33%) than those in the second year (52.38%). When it comes to years of learning English, 55.84% of those with 14 to 17 years, 51.52% of those with 10 to 13 years and 50% of those with 18 to 21 years said that this participle was a verb.

Graph 4.
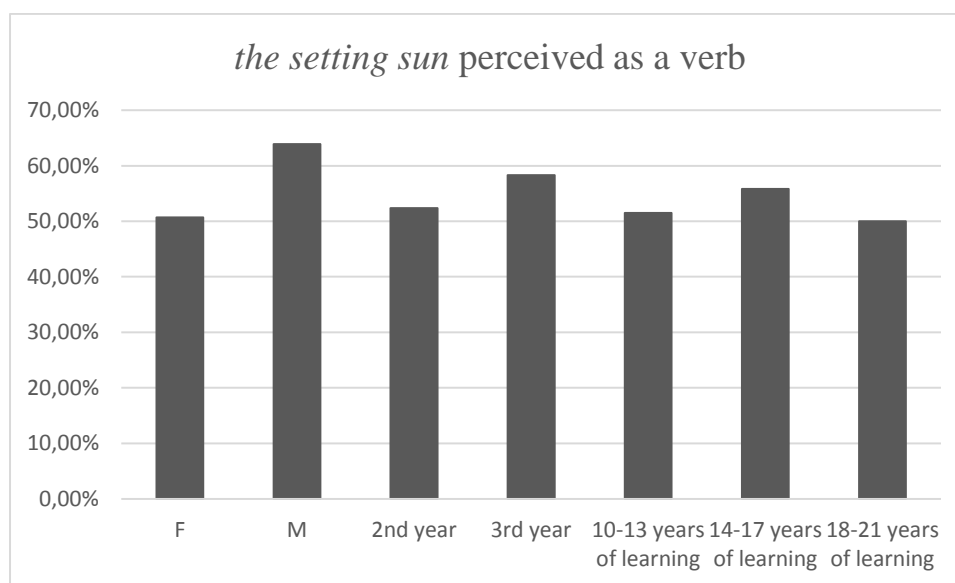
In this part of the questionnaire the students were asked to justify their answers as well. Among those who said that *setting* was a verb, 22.95% justified their answer by paraphrasing the phrase in different ways, e.g. *The sun that sets.* This might be the reason why the aforementioned 14.69% changed their mind and categorized it as a verb – when they tried to think of a justification for the adjectival status of this participle, they might have considered transforming the phrase into a verb phrase a more feasible solution. 16.39% said that it was a verb because it denotes some kind of action, 3.28% said that it was a verb because of the *-ing* ending, and the same percentage of the participants justified their answer by saying that this participle could not admit premodification by *very*. The rest of the participants did not provide their justification.

Graph 5.

Justification for *the setting sun* as a verb

paraphrase;
23%

action; 17%

cannot admit
ing; 3%
very; 3%

no justification;
54%

Among those who said that this participle was an adjective, the majority, 53.06% justified this opinion by saying that the participle occurred in a noun phrase as premodification and thus must be an adjective. 16.32% said that it provided some kind of description, and 8.16% said that it denoted a kind. The rest of the participants did not provide their justification.

Graph 6.

Justification for *the setting sun* as an adjective

no justification;
23%

noun phrase;
53%

kind; 8%

description;
16%
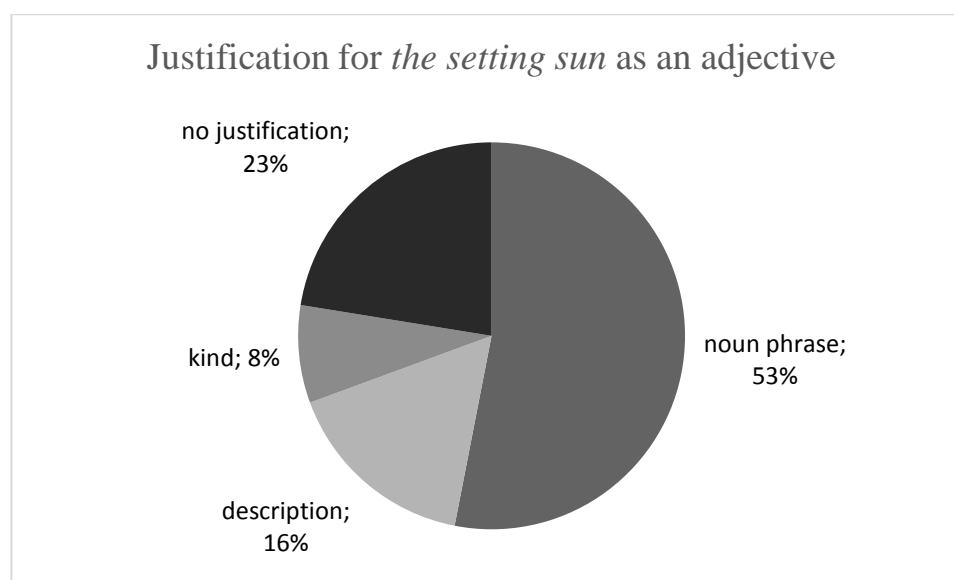
The second phrase tested was *a roaring bull*. Again, most of the participants said that the participle *roaring* was a verb (60%). This was the perception of 63.89% of male

participants and of 57.33% of female participants. Among those in the second year of study 55.56% said that this participle was a verb and 62.5% of those in the third year said the same. When it comes to years of learning English, 60.61% of those with 10 to 13 years and 59.74% of those with 14 to 17 years of learning English said so. Among those with 18 to 21 years of learning English no one shared this perception.

Graph 7.
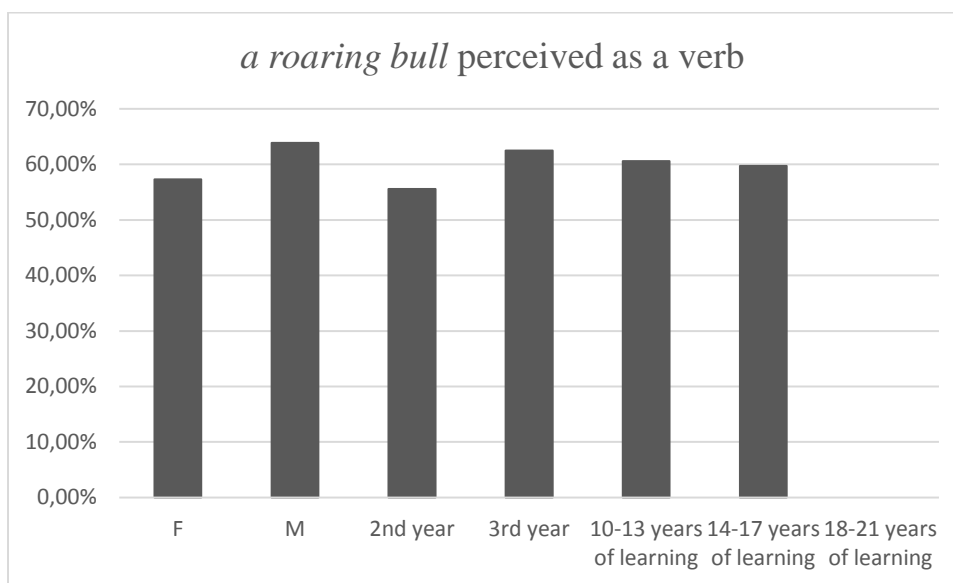
The prevalent justification for this perception was expressed by paraphrasing (21.21%), e.g. *a bull that is roaring*. 16.67% of the participants said this participle was a verb because it denoted some kind of action, 1.52% said that it was a verb because it could not admit premodification by *very*, and the same percentage justified their answer by saying that the *-ing* ending signalled that we were dealing with a verb.

Graph 8.

Justification for *a roaring bull* as a verb

- paraphrase; 21%
- action; 17%
- cannot admit very; 1%
- ing; 2%
- no justification; 59%
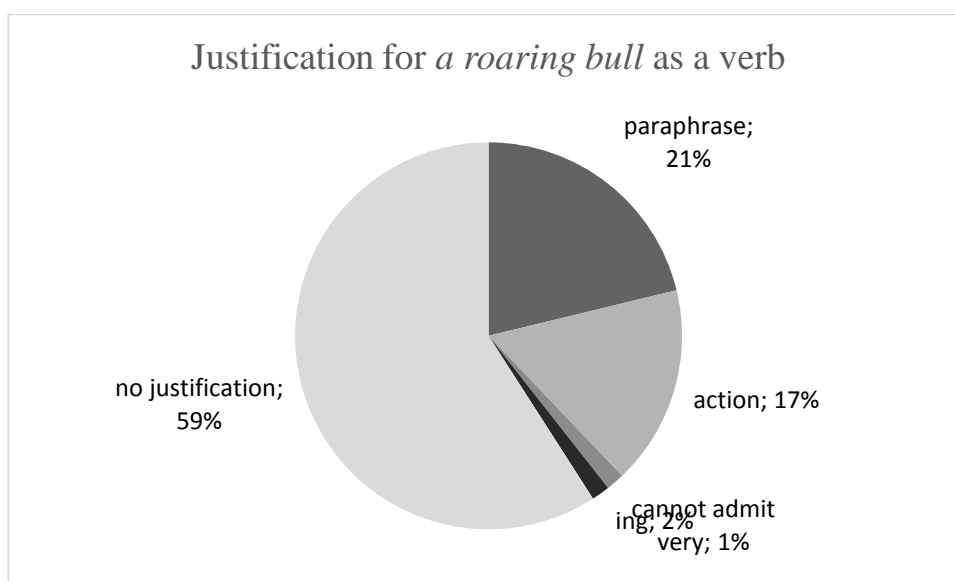
Among those who said that this participle was an adjective, 50% justified their answer by saying that it was part of a noun phrase, 13.64% said that it had a descriptive function, and 6.82% said that it denoted a kind. The rest of the participants who shared this perception did not provide their justification.

Graph 9.

Justification for *a roaring bull* as an adjective

- no justification; 29%
- noun phrase; 50%
- kind; 7%
- description; 14%
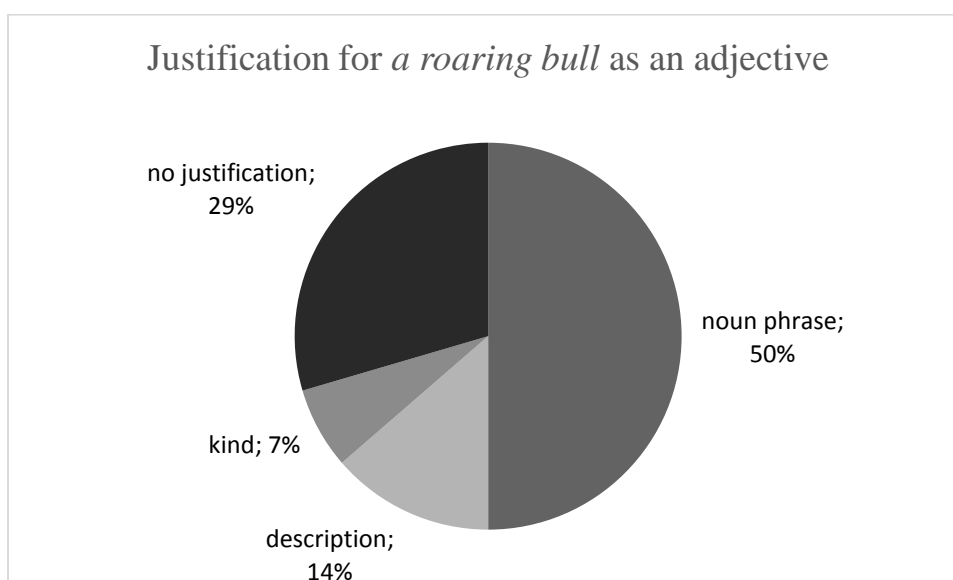
The remaining two phrases in this part of the questionnaire contained an *-ed* premodification, and the first one among them was *an offended politician*. This participle was

predominantly perceived as an adjective (91.67%), with 94.44% of the male participants and 85.33% of the female participants expressing this perception. Among the participants in the second year of study 93.65% said that this participle was an adjective, and 83.33% of those in the third year of study agreed. 84.85% of the participants with 10 to 13 years of learning English, 89.61% of those with 14 to 17 years of learning English, and 100% of those with 18 to 21 years of learning English said so as well.

Graph 10.
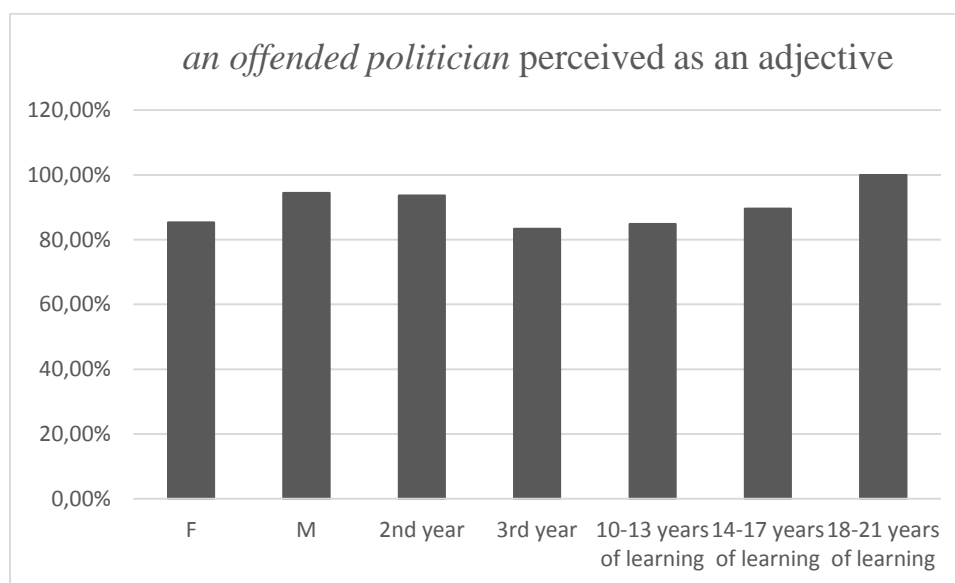
More diverse justifications were given for the adjectival status of this participle. 23.23% of the participants said that this participle was an adjective because it was a part of a noun phrase, 14.14% said that it was an adjective because it provided a description, and 3.03% said that it was an adjective because it denoted a kind. 7.07% explained their position by saying that this participle denoted a feeling, 5.05% by saying that it denoted a state, 4.04% by saying that it could admit premodification by *very*, and 1.01% said that this participle was an adjective because it was in the passive voice.

Graph 11.

Justification for *an offended politician* as an adjective

noun phrase; 23%

description; 14%

kind; 3%

state; 5%

passive; 1%

feeling; 7%

very; 4%

no justification; 43%
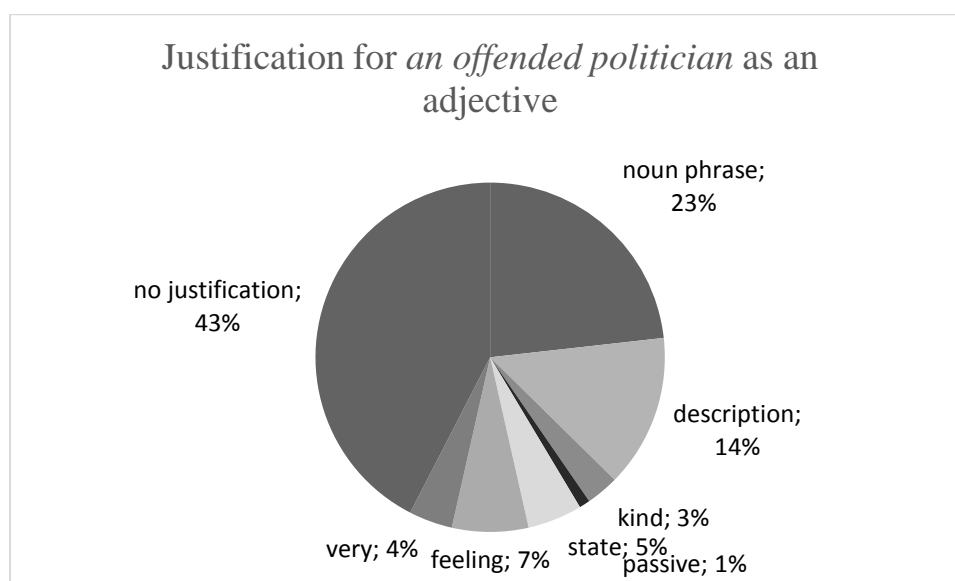
Among those who perceived this participle as a verb, 12.5% justified their opinion by paraphrasing, and the rest did not provide their justification.

Graph 12.

Justification for *an offended politician* as a verb

paraphrase; 12%

no justification; 88%
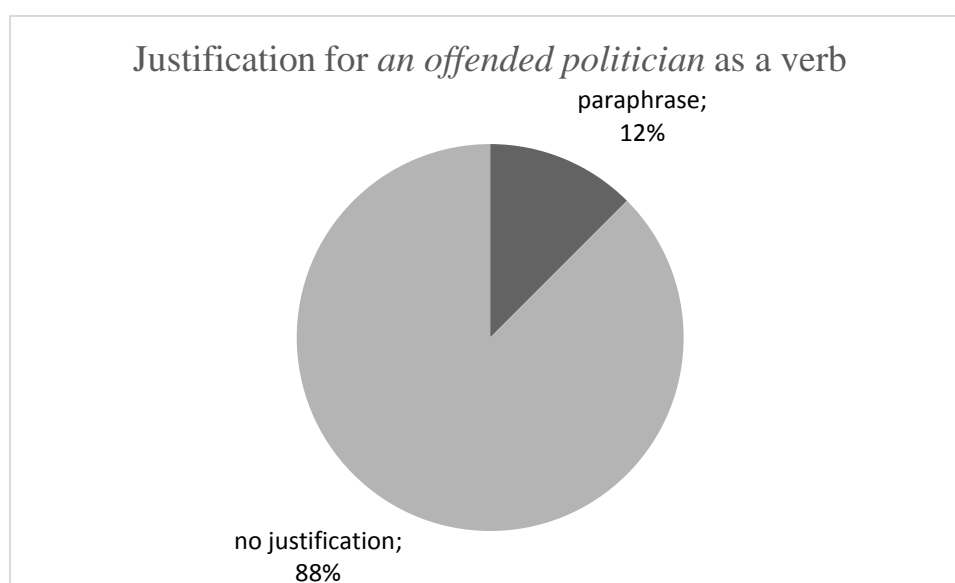
The last phrase that was tested in this part of the questionnaire was *an escaped prisoner*. Just like the *-ed* participle in the previous phrase, *escaped* was perceived as an adjective by the majority of the participants (74.07%). 77.78% of the male and 68% of the female participants said that this participle was an adjective, which is very similar to how the students in the second year of study (73.02%) responded in comparison to those in the third year

(68.75%). Among the participants with 10 to 13 years of learning English 63.64% perceived this participle as an adjective, among those with 14 to 17 years of learning English 74.03%, and 100% of those with 18 to 21 years of learning English.

Graph 13.
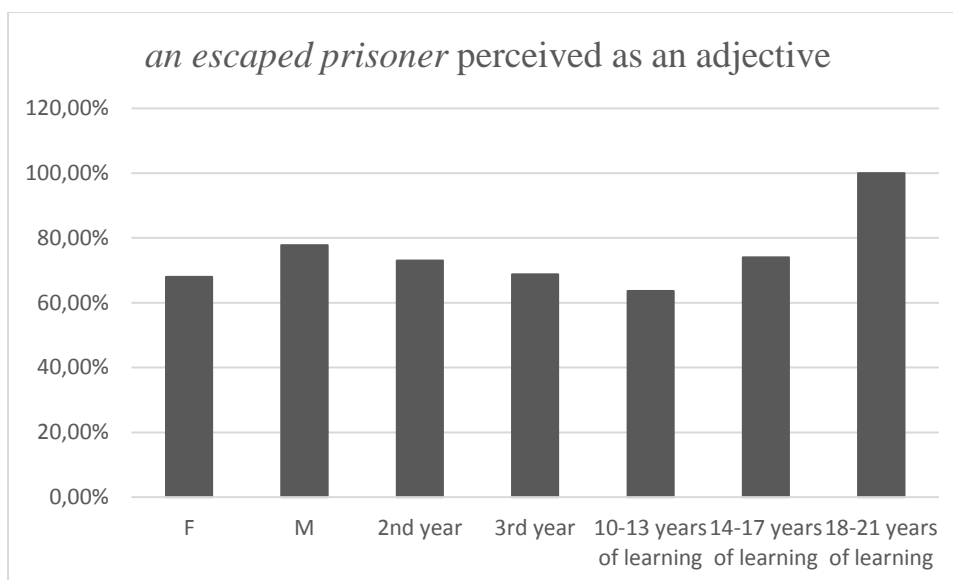
The predominant justification, again, was that this participle was part of a noun phrase (27.5%). 18.75% of those who perceived this participle as an adjective said that it provided a description, 10% said that it denoted a kind and 5% said that it denoted a state. The rest did not provide justification for their opinion.

Graph 14.
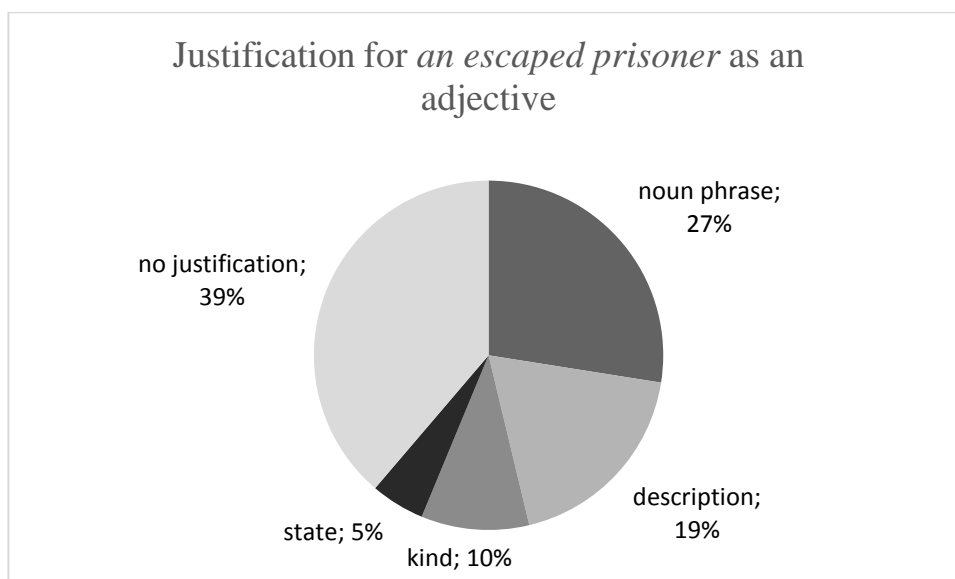
Among those who perceived this participle as a verb, 25% resorted to paraphrasing as justification, 10.71% justified their opinion by saying that this participle denoted an action, and 3.57% by saying that it cannot admit premodification by *very*. The rest did not provide a justification for their opinion.
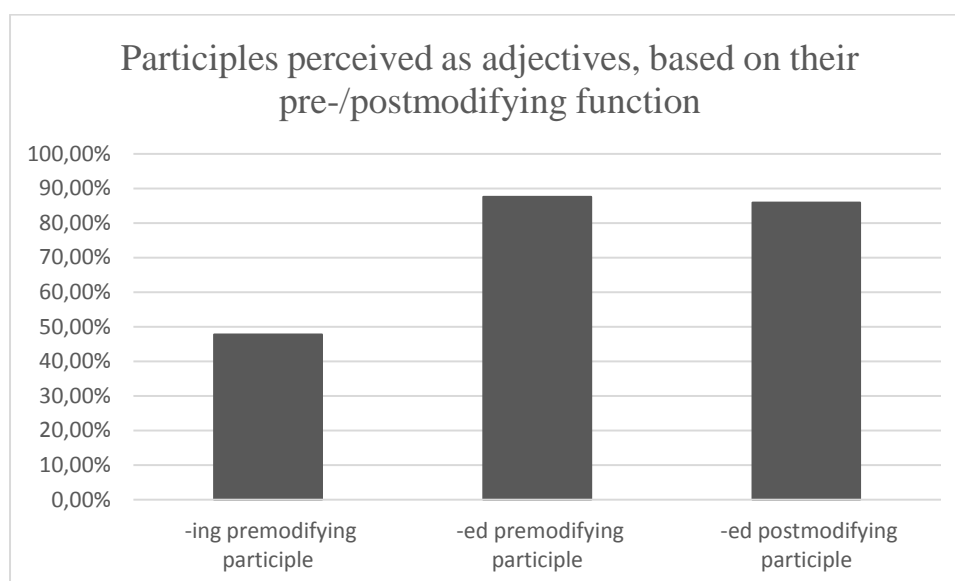
Graph 15.
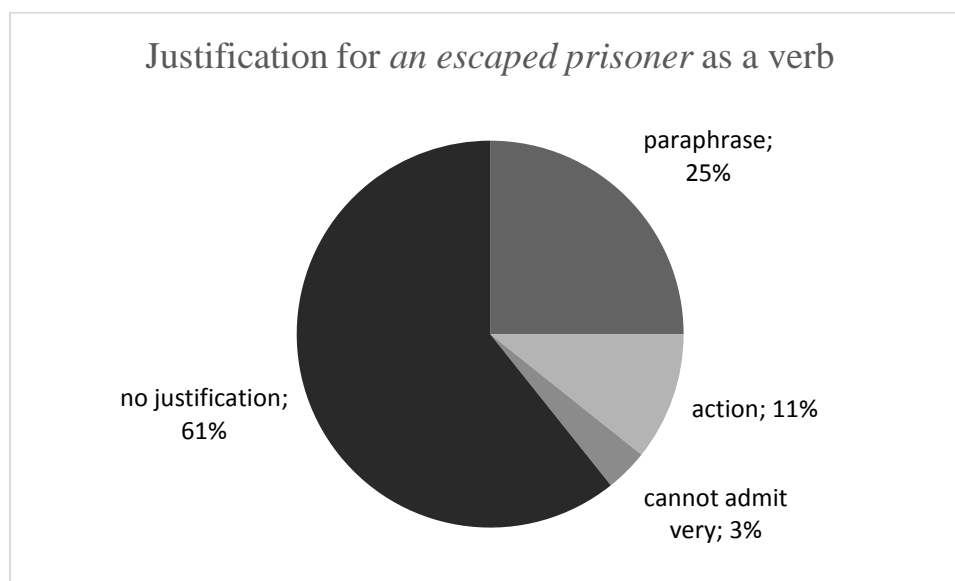
5.5 Discussion

This study showed that the majority of the students of English who participated in this study perceived *-ed* participles as more adjectival than *-ing* participles, which means that our first hypothesis has been confirmed. In the first part of the questionnaire, 58.78% of the participants said that they perceived the given *-ing* participles as adjectives, while 91.39% said that they perceived the given *-ed* participles as adjectives. The situation was similar in the second part where 42.36% of the participants stated that the given *-ing* participles were adjectives, while 82.87% of them said that the given *-ed* participles were adjectives. In total, 50.57% of the participants perceived the given *-ing* participles as adjectives, and 87.13% of them perceived the given *-ed* participles in the same way.

Graph 16.

Participles perceived as adjectives
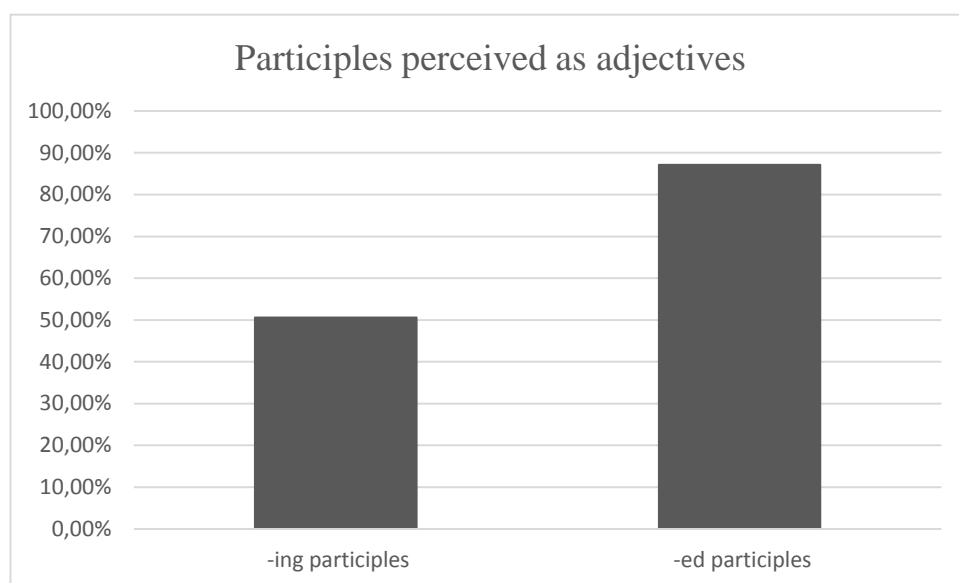
The second hypothesis was that premodifying participles are perceived as more adjectival than postmodifying participles and it has been rejected since 67.66% of the participants perceived the premodifying participles as adjectives, and 85.89% perceived the postmodifying participles as adjectives. However, a different interpretation of this data emerges if we take into consideration the fact that there were both *-ing* and *-ed* premodifying participles and only *-ed* participles with postmodifying function; it has already been shown that *-ing* premodifying participles are considered less adjectival than their *-ed* counterparts, so if we exclude the former from the data, we get 87.54% of the participants who perceived the given *-ed* premodifying participles as adjectives, as opposed to 85.89% of those who perceived the *-ed* postmodifying participles as adjectives. In other words, the second hypothesis can also be accepted after all.

Graph 17.

Participles perceived as adjectives, based on their pre-/postmodifying function

[Bar chart showing three bars: "-ing premodifying participle" at approximately 48%, "-ed premodifying participle" at approximately 88%, "-ed postmodifying participle" at approximately 86%. Y-axis ranges from 0,00% to 100,00% in increments of 10,00%.]

The female participants were more prone to perceiving the *-ing* participles as adjectives (49.19%) than the male ones (41.97%), while the latter were more prone to perceiving the *-ed* participles as adjectives (89.7%) than the former were (83.44%). Very similar were the differences in the perception of *-ed* premodifying participles as adjectives (83.55% of females to 89.35% of males) and *-ed* postmodifying participles as adjectives (83.11% of females to 90.74% of males), which means that the male participants were generally more prone to perceiving participles as adjectives than the female ones were. This finding could be ascribed to the presumption that female students are generally more diligent in school than their male colleagues and thus are more prone to following the rules of what they have been taught (*-ing* ending is verbal, a noun cannot be premodified by a verb, etc.), while male students are more open to following their intuition.

Graph 18.
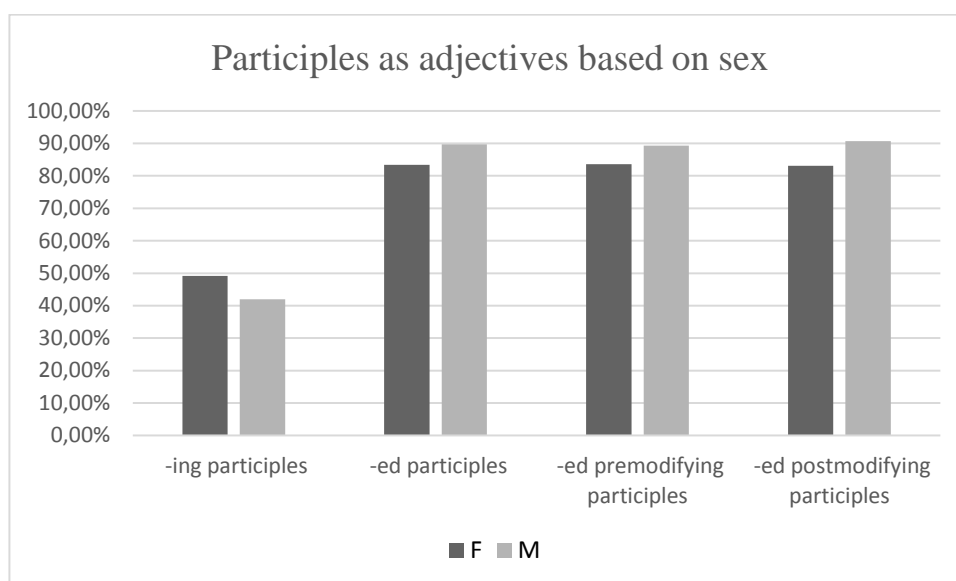
There was only minimal difference between the students in the second year and those in the third year when it comes to the perception of *-ing* participles (55.73% of second year students and 59.26% of third year students perceived them as adjectives), and the same applies to the difference between them when it comes to the perception of *-ed* participles (86.84% of second year students and 84.2% of third year students perceived them as adjectives), premodifying *-ed* participles (87.57% of second year students and 83.33% of third year students perceived them as adjectives), and postmodifying *-ed* participles (52.38% of second year students and 58.33% of third year students perceived them as adjectives).

Graph 19.
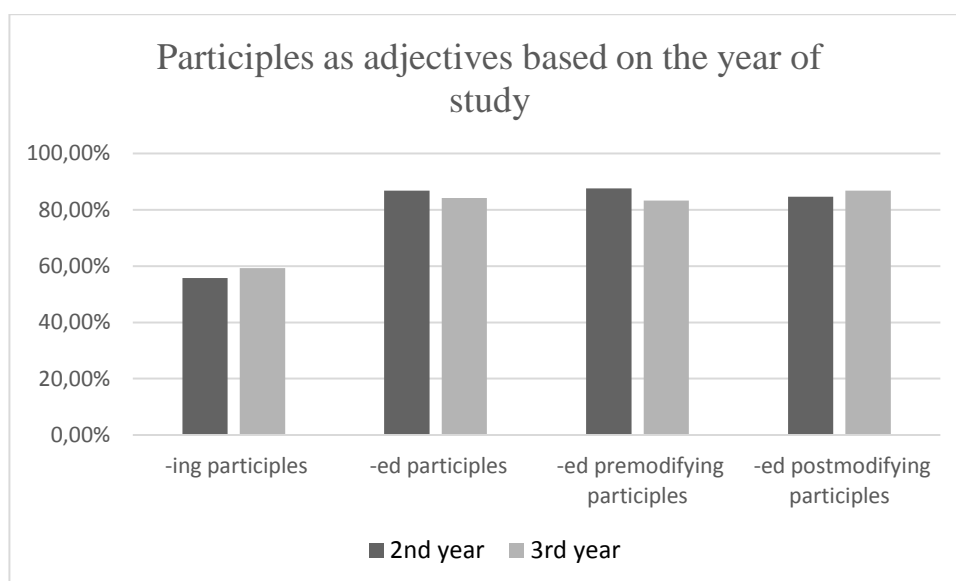
When it comes to the way the participles were perceived by the students based on how long they had been learning English, only the category 18 to 21 years of learning English showed a slight deviation from the remaining two categories – 10 to 13 and 14 to 17 – and the reason for this probably lies in the fact that there were only two participants in this category, so this data will not be used in the discussion. Almost the same percentage of participants with 10 to 13 and those with 14 to 17 years of learning English perceived the *-ing* participles as adjectives (58.25% to 57.57%), and only slightly more students with 14 to 17 years of learning English perceived the *-ed* participles as adjectives (86.47% to 82.7%). Premodifying *-ed* participles were perceived as adjectives by 86.87% of those with 10 to 13 years of learning English and by 84.85% of those with 14 to 17 years of learning English, while the situation was reverse for the *-ed* postmodifying adjectives, which were perceived as adjectives by slightly more students with 14 to 17 years of learning English (87.01% to 81.31%). The variable "age" was not tested since the difference between the participants in this respect was too small.
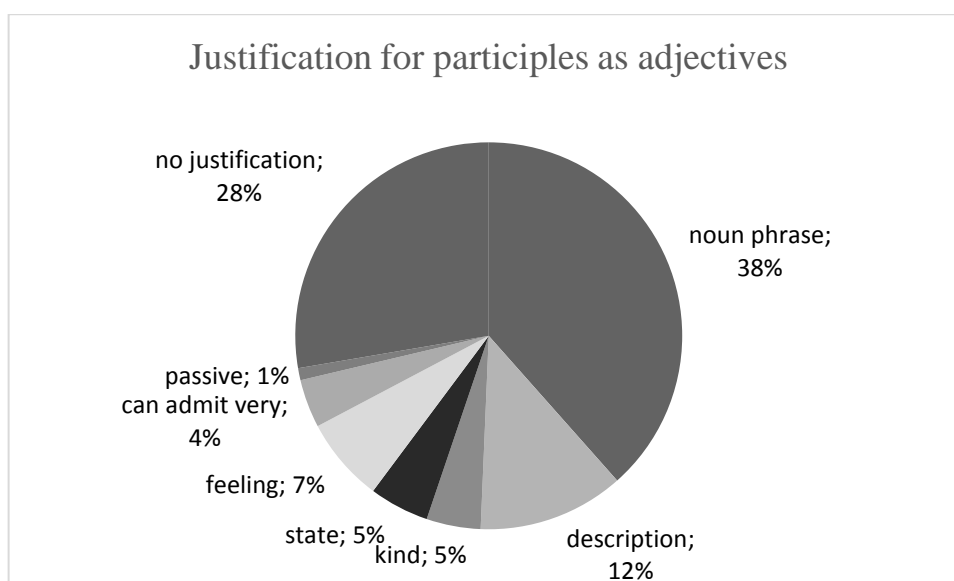
Graph 20.

Participles as adjectives based on the years of learning English
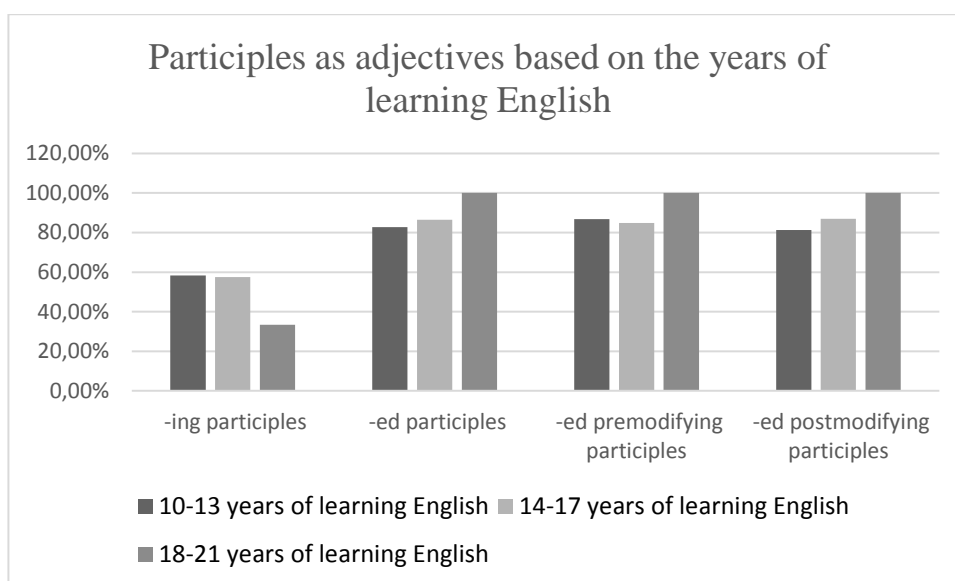
What can be concluded from all of the presented data is that none of the tested variables caused a significant variation.

The most frequent justification for participles being considered adjectives was that they were parts of noun phrases (38.45%), with 51.53% of the participants justifying their perception of the *-ing* participles in this way, and 25.37% of them justifying their perception of the *-ed* participles in this way. The next most frequent justification was that the participles provided description (12.22%), with 14.99% of the participants giving this justification for the *-ing* participles and 16.45% for the *-ed* participles. 4.53% said that these participles denoted a kind, with 7.49% providing this justification for the *-ing* participles and 6.53% for the *-ed* participles. Finally, 5% of the participants justified their perception of the *-ed* participles by saying that they denoted a state, 7.07% by saying that they denoted feelings, 4.04% by saying that the participles could be premodified by *very*, and 1.01% by saying that they were in the passive voice.

Graph 21.

Justification for participles as adjectives

no justification; 28%

noun phrase; 38%

passive; 1%
can admit very; 4%

feeling; 7%

state; 5%
kind; 5%

description; 12%

Among those who perceived the participles as verbs, 20.42% justified their opinion by resorting to paraphrasing (22.08% for the *-ing* participles and 18.75% for the *-ed* participles), and 10.94% by saying that the participles denoted action (16.53% for the *-ing* participles and 5.36% for the *-ed* participles). The justification that the participle could not admit premodification by *very* was expressed by 2.79% of the participants and only regarding *-ing* participles, and 2.4% said that the participles were verbs because of the ending *-ing*.

Graph 22.

Justification for participles as verbs

paraphrasing; 20%

action; 11%

cannot admit very; 3%
-ing; 2%

no justification; 64%
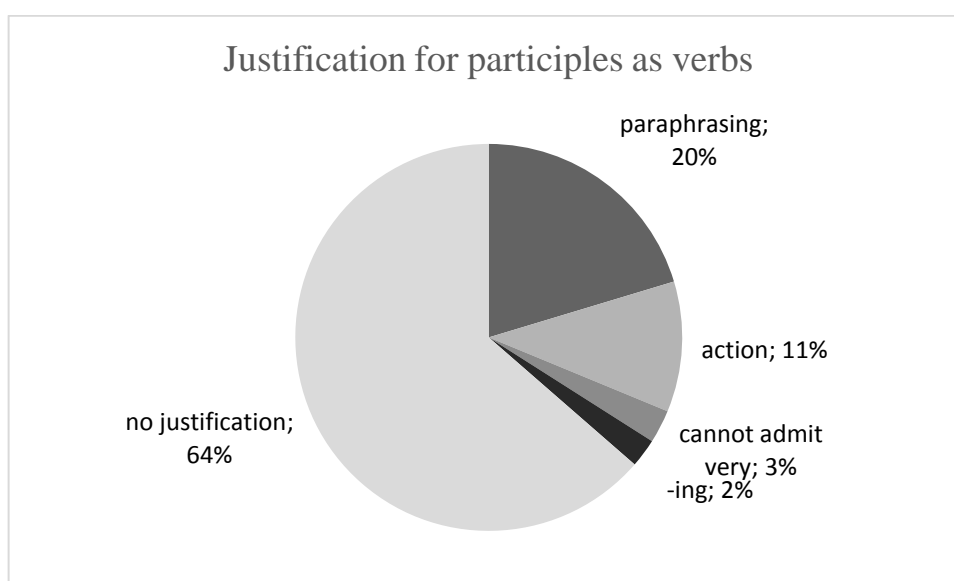
These data clearly show that the participants mostly relied on syntax when categorizing the given participles (*noun phrase* and *cannot admit* very). Even though only 2.40% of those who perceived the *-ing* participles as verbs explicitly referred to the ending *-ing*, this ending was probably an implicit reason for those who resorted to paraphrasing as well (20.4%) to share this perception, because what they actually did was transform a given noun phrase into a verb phrase. This is why we can infer that morphology was next to syntax in this respect. Still, this was present with the *-ing* participles more than with the *-ed* participles, the latter having stimulated more diverse justifications in the field of (adjectival) semantics (state, kind, description, feeling).

6. CONCLUSION

To sum up, English participles are a fluid word category significantly marked by the adjectival function they often perform, and their great aptitude for doing so challenges the commonly presumed verbness of their core. There have been multiple tests established for the purpose of determining the often unclear categorial status of participle-like words, but they have mostly been rejected as unreliable since they cannot be used as universal diagnostics, which indicates the difficulty of finding an appropriate way of treating this topic. As we have seen, past participles are "better" adjectives because they by nature contain less verbal force and more descriptive/adjectival potential. In various analyses of the APF, thematic relations were central in the process of externalization, but this was superseded by moving emphasis to lexical-thematic properties of verbs. Present participles, on the other hand, are more restricted in this respect, because their verbal nature is easier to get in conflict with the adjectival role they can have. This conflict has various semantic repercussions resulting in different interpretations and subtypes of active participles in adjectival function.

The difference in the adjectival potential between the *-ing* and *-ed* participles was proved in the study conducted among the students of English as well. The active participles were perceived as verbal by most of them, despite their premodifying function, while the past participles were mostly perceived as adjectives, even the ones with the postmodifying function. The position of the modification also proved to be an important factor in categorizing participles, with more participants perceiving the premodifiers as more adjectival than the postmodifiers. While the adjectival categorization of both the *-ing* and the *-ed*

participles mostly took place in the field of adjectival syntax, only the categorization of the latter provoked justifications in the field of adjectival semantics.

Given the results of this study, it could serve as a good starting point for a more specific study on the factors that influence the perception of participles.

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APPENDIX

QUESTIONNAIRE EXAMINING STUDENTS' OF ENGLISH PERCEPTION OF PARTICIPIAL ADJECTIVES

This questionnaire is part of the research for a Master's thesis at the Department of English, Faculty of Humanities and Social Sciences in Zagreb.

It is completely anonymous and to be completed voluntarily.

Please circle what applies to you (if you are both a native speaker and a student of English, circle both options):

I am **a native speaker of English**/**a student of English**

Age _____

Sex **M** **F**

For students of English:

Current year of study _____

Total years of learning English _____

I For each sentence indicate whether **the word written in bold** is **a verb** or **an adjective** by writing either **V** (verb) or **A** (adjective) on the line under the sentence:

1) In the latest caning, **five people -- two women and three men -- were flogged in front of a cheering crowd** at a mosque in the provincial capital Banda Aceh.

_____

2) No company would permit an *unqualified* accountant to audit its books.

_____

3) He was very **bored** while she was cleaning the windows.

_____

4) One in two Canadians admit *they were **unprepared*** to manage finances heading into University.

_____

5) She caught a coolly **calculating** glint in the other woman's eye.

_____

6) You can use ***peeled*** *tomatoes* from a can, but it is usually best to use fresh tomatoes for a stronger and fresher flavor.

_____

7) Since I met you, I've *felt **abandoned*** without your nearness.

_____

8) "It truly is an **amazing** story," he said.

_____

9) Two Staten Island Ferry boats catch the last rays of the ***setting*** *sun* while crossing paths.

_____

10) The chicken*burger* was very thin and ***overcooked*** which made it very chewy.

_____

II For each phrase say whether **the word written in bold** is **an adjective** or **a verb** and justify your answer:

1) the **setting** sun

    _____
    _____

2) a **roaring** bull

    _____
    _____

3) an **offended** politician

    _____
    _____

4) an **escaped** prisoner

    _____
    _____