Italian Factive islands are not 'that weak': new evidence from the factive/bridge distinction[•]

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[•]   The authors have worked jointly on the study conception and the design of this work, constantly confronting and discussing the results of the empirical investigation. For the concerns of the Italian academy, Giorgio Carella is responsible for Sections 4 and 5, Mara Frascarelli is responsible for Sections 1 and 2, and Marco Casentini is responsible for Section 3.

Abstract

Long-distance dependencies are a major property of human language, deriving from the successive application of movement operations across sentences. Nevertheless, this possibility seems to be restricted by the presence of barriers, which 'trap' constituents in more or less 'resistant' syntactic islands. Given this scenario, this paper paper investigates a specific type of island, namely factive complements, which are traditionally considered 'weak' islands. The main goal is thus to verify the status of factive islands in Italian, based on original experimental data. Moreover, since island effects have been generally tested against wh-extractions, a secondary goal of the present study is to verify whether other types of A'-movement, such as Focus fronting, can be restricted by island effects as well. The results obtained from two experimental tests, carried out with the collaboration of a total of 310 informants, provide evidence that Italian factive islands seem to lie somewhere between strong and weak islands, qualifying as a sort of 'intermediate' island. Indeed, direct objects appear to be less constrained than subjects, indirect objects and adjuncts. Furthermore, the extraction of a Focus constituent from a factive complement lowers the acceptability of the sentence, thus indicating that (factive) islands are indeed sensible to Focus fronting.

Keywords: Factive Islands, Focus Fronting, A'- movement, long-distance dependencies, Movement constraints

1. Introduction

A major property of syntactic constituents is the possibility (or necessity) to be subject to Movement operations, which can target either argument (A) or non- argument (A') positions. Furthermore, Movement can apply in successive cycles, thus obtaining so-called 'long-distance dependencies'. However, while long-distance dependencies freely apply in some cases, the analysis of data shows that extraction can be tampered in certain syntactic constructions, thus yielding the necessity to assume the existence of 'syntactic islands' in the structure (Ross 1967). The complements of factive verbs can be counted among these cases. Given these premises, the main goal of the present analysis is exactly to investigate the behavior of factive islands in Italian.

In the literature, islands effects have been generally tested through wh-dependencies. However, besides wh-elements, different types of constituents can establish long-distance dependencies and could consequently trigger island effects. Focus is one of these elements. Hence, it is feasible to hypothesize that syntactic island effects which are triggered by wh-extractions can be triggered by Focus fronting as well. To check whether factive islands might be sensible to Focus Fronting is therefore the second goal of the present investigation.

In particular, the two following research questions will lead our experimental analysis:

(i)   Do experimental data confirm Italian factive islands as weak islands?
(ii)   Are factive islands sensible to other types of A'-movements, such as Focus Fronting, as well?

In order to answer the first research question, an acceptability judgment test has been designed, confronting wh-extractions of subjects, direct objects (DOs), indirect objects (IOs) and adjuncts from factive and bridge complements (the latter assumed to be fully grammatical).

As for the second research question, the data used come from an experiment originally designed in Carella (2019) to investigate the behavior of three types of Foci in Italian, namely Information (cf., Kiss 1998), Corrective (cf., Bianchi & Bocci 2012) and Mirative Focus (cf., Bianchi et al. 2016). For the purpose of the present research, we will concentrate on the data related to the interaction between the syntactic position of the Focus and the type of matrix verb, so as to check whether, and to what extent, the acceptability of fronting might be influenced by a factive matrix verb.

In detail, the present paper is organized as follows: Section 2 is dedicated to the theoretical background, with Section 2 to 2.3 dedicated to movement restrictions and syntactic islands. In Section 3 to the notion of Focus, Focus fronting and the comparison between Focus and wh-elements are dealt with. Then, the details of the present research are illustrated in Section 4. Specifically, Section 4.1 is dedicated to the main goals and relevant research questions, while Section 3.2 and 3.3 illustrate the design and the results of the two tests mentioned above. Finally, Section 5 provide final conclusions confronting the present results with the research questions illustrated above.

2. Movement Restrictions

One of the defining characteristics of human language is the existence of long- distance dependencies between two (or more) elements in a sentence. For example, the wh-interrogative clauses in (1a-c) illustrate a long-distance dependency between the wh-phrase at the beginning of the sentence and the argument position of an embedded verb (the so-called "gap position" indicated with a trace):

(1)　　a.　　What$_k$ does Sarah think that Leo bought t$_k$?
　　　　b.　　What$_k$ does Sarah believe t'$_k$ that Susan thinks that John bought t$_k$?
　　　　c.　　What$_k$ does Bill claim t''$_k$ that Sarah believes t'$_k$ that Susan thinks that John bought t$_k$?

Although long-distance dependencies are unconstrained with respect to length as measured in number of words or number of clauses, as is clear from in (1b-c), there do appear to be constraints on the types of structures that can contain the gap position. This is the case of a sentence like (2):

(2)　　*What$_k$ do you wonder whether John bought t$_k$?

The unacceptability of (2) shows that long-distance dependencies cannot apply out of certain syntactic configurations. This observation, however, does not make clear what the source of the unacceptability is. Then, if we adopt a comparative approach to this issue and compare (2) with sentences like (3) and (4) below, we can understand that the relevant restriction derives from the combination of two properties, that is to

say, the presence of an embedded clause introduced by *whether*, plus a long- distance dependency out of the relevant embedded clause:

(3)   What$_k$ do you think [that John bought t$_k$]?

(4)   Who$_k$ t$_k$ wonders [whether John bought a car]?

As a matter of fact, (3) shows that a long-distance dependency out of a CP headed by *that* does not determine unacceptability and (4) shows that the presence of *whether* in the embedded clause is immaterial if the long-distance dependency is not established.

The existence of restrictions on movement operations has opened the way for a field of research to which several scholars have devoted themselves in the literature, namely the 'search and discovery' of so-called syntactic islands. Nevertheless, the reduction of the constraints on wh-movement to more general principles has proven a considerable challenge to syntactic theory, persisting to the present day. Indeed, no satisfactory overarching framework has yet been found that subsumes the entire range of island constraints. Hence, they still remain as an empirical benchmark against which to measure any theoretical proposal concerning constraints on wh-movement.

2.1. Syntactic Islands

The domains in which unbounded dependencies are blocked have been defined as 'islands' since Ross' (1967) seminal work. Island effects are interesting because they show that unbounded dependencies are, in fact, bounded in some circumstances and, after their treatment in Chomsky (1973, 1977, 1981), these constraints have been frequently used in traditional syntactic analyses which have been highly influential in the development of syntactic theories, especially movement-based analyses of syntactic and semantic phenomena.

Island effects are commonly illustrated using wh-dependencies, but their effects vary based on the type of syntactic structure in which these dependencies occur, such as (i) (different types of) Complex NP islands (5a-c), (ii) interrogative clauses headed by *whether* or other wh-phrases (6a–b), (iii) Subject islands (7), (iv) Sentential Subject islands (8), (v) Adjunct islands (9), Coordinate structures (10) and Factive islands (11). Notice that in the case of factive islands the interpretation that is excluded is the one in which the interrogative word *why* is interpreted as modifying the embedded clause:

(5)   a. *What$_k$ did you make [the claim that John bought t$_k$]?
         b. *What$_k$ did you meet [the student who said t$_k$]?
         c. *Who$_k$ did Sarah believe [Leo's news about t$_k$]?

(6)   a. *What$_k$ do you wonder [whether John bought t$_k$]?
         b. *What$_k$ does Sarah know [who saw t$_k$]?

(7)   *What$_k$ do you think [the speech about t$_k$] interrupted the show?

(8)   *What$_k$ do you think [that Sarah said t$_k$] offended the teacher?

(9)   *What$_k$ do you worry [if John discovers t$_k$]?

(10)   *What$_k$ did John cook [a soup and t$_k$]?

(11)   *What$_k$ did you regret [that your colleague left t$_k$]?

Island effects are interesting because they are attested in children since their young age in different languages, leading scholars to consider such constraints as part of Universal Grammar (cf. Sprouse and Hornstein 2013 for relevant discussion).
Since their discovery, however, there has been broad agreement among linguists that an arbitrary list of the type illustrated in (5)-(11) above is unsatisfying, and many attempts have been made to trace islands effects back to a more general account, so as to reduce them to a small set of abstract constraints on unbounded dependencies (cf., among others, Chomsky 1986, Rizzi 1990, Lasnik and Saito 1992, Manzini 1992; for reviews see Szabolcsi and den Dikken 2003, Boeckx 2012).

In addition to the explanatory inadequacy of a simple descriptive list of island-related phenomena, the analysis of the data soon brought to light the existence of a 'strength distinction' between different islands, particularly evident in some languages, apparently in relation to (different) independent parameters. This observation gave rise to the distinction between *weak* and *strong islands* (cf. §2.3 below) and different proposals have been put forth in the literature, of which we will provide a brief review in the following sub-sections.

2.2. Tracing island effects to a comprehensive account

2.2.1. A-over-A Condition and Subjacency
In an early attempt to capture restrictions on movement operations Chomsky (1964) proposed the so called 'A-over-A' Principle, which blocked a phrase from being extracted out of another phrase of the same category. More specifically, this Condition states that, if a rule ambiguously refers to A in a structure of the form of (12), this rule must apply to the higher, *more inclusive*, node A.
This principle thus prevents extraction of an NP like *Africa* out of the NP [*my trip to Africa*] in which it is included (cf. (13a-b)), but allows the more inclusive NP to be fronted in (13c):[1]

(12)   ... [A ... [A ...
(13)   a. I will never forget [$_{NP}$ my trip to [$_{NP}$ Africa]]
        b. *Africa$_k$, I will never forget [$_{NP}$ my trip to [$_{NP}$ t$_k$]]
        c. [My trip to Africa]$_k$, I will never forget t$_k$

Nevertheless, it quickly became clear that this constraint was both too narrow and too broad (Ross 1967). Hence, in a well-known attempt to unify a number of different island effects, Chomsky (1973) proposed the *Subjacency Principle*, which ruled out extractions that cross more than one *bounding node*, where the bounding nodes correspond to NP and S (that is to say, the CP sentential node).

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[1]   Though the DP label is generally used in recent works to refer to the Noun Phrase, we decided to stick to the original term used in the literature (namely, NP) when referring to the relevant issues and conditions.

This constraint was combined with the proposal that unbounded dependencies involve *successive cyclic movement* of the extracted phrase from one clause to the next, passing through the CP-specifier position of each clause, leaving *intermediate traces*:[2]

(14)   What$_k$ are they claiming [t'''$_k$ that she believes [t''$_k$ that he said [t'$_k$ that she was doing t$_k$]]]?

In this way long-distance dependencies are assumed to involve *multiple local dependencies*, each of which conforms to the Subjacency Principle. A number of phenomena have been then analyzed as overt reflexes of successive cyclic wh-movement (cf., among others, Clements 1984, Torrego 1984, McCloskey 1990, 2000).

However, even this explanation failed to encompass the complex case history of syntactic islands. As a matter of fact, the condition on cyclic movement should guarantee the possibility of extracting constituents from any syntactic domain, passing through successive steps. But this is not always the case, as demonstrated by sentences like the following:

(15)   a. *What$_k$ did [IP he make [DP the claim [CP t'$_k$ that [IP she saw t$_k$]]]] ?
       b. *Whose$_k$ did [IP she take [DP t$_k$ book]] ?
       c. *Who$_k$ did [IP you leave [CP t'$_k$ before [IP I met t$_k$]]] ?

Extending and deepening the analysis of movement restrictions, Chomsky (1986) thus put forth the concept of *Barrier* as the underlying cause to the formation of syntactic islands.

2.2.2. Barriers and the ECP
In its original formulation, the barrier is defined as in (16):

(16)   X is a barrier for Y iff (a) or (b):
       (a)   X immediately dominates d, d is a Blocking Category for Y
       (b)   X is a Blocking Category for Y, X ≠ IP

Where a 'Blocking Category for Y' is defined as any maximal projection that dominates Y and is not L-marked.[3]

Nevertheless, also in this case cross-linguistic data challenge the comprehensive value of the barrier condition. One typical example is provided by the so-called 'that-trace effects'. As is known, in languages like English a wh-question in which the gap follows the complementizer is generally unacceptable (17a), whereas the corresponding sequence in Italian is fine (17c). However, this effect can be obviated in English simply removing the complementizer (17b).

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[2]   The issue of traces versus copy deletion theory and the role of phases are irrelevant to the main focus of the present paper. Hence, for the sake of clarity, we will describe long distance movements in terms of traces, while the intermediate positions will only be marked in the CP.

[3]   Specifically, Chomsky's (1986) definition of L-marking is the following: "where α is a lexical category, α L-marks β iff β agrees with the head of γ that is theta-governed by α." In prose, a category is L-marked iff it is θ-marked by a lexical head.

(17)   a. *Who do you think that will win the race?
        b. Who do you think will win the race?
        c. Chi pensi che vincerà la gara?

(18)   a.*Who$_k$ do [IP you think [CP t''$_k$ that [IP t'$_k$ will [VP t$_k$ win [DP the race]]]]?
        b. Who$_k$ do [IP you think [CP t''$_k$ [IP t'$_k$ will [VP t$_k$ win [DP the race]]]]?

This contrast provides a challenge for the barrier theory since IP, in itself, does not represent a barrier (cf. (16b)). Several studies have been dedicated to this issue (cf., among others, Rizzi 1982, Brandi and Cordin 1989, Roberts and Holmberg 2010), reaching the conclusion that the complementizer prevents the activation of an alternative way to obtain proper government, that is to say, antecedent government of the trace under examination.

To encompass this observation into a comprehensive theory of trace licensing, a *disjoint* formulation of the Empty Category Principle (ECP) is proposed in Rizzi (1990), as a basic requirement for movement:

(19)   Empty Category Principle (ECP)
        a. A trace of movement must be properly governed
        b. A trace is properly governed iff
                i. it is antecedent-governed, or
                ii. it is lexically governed.

This disjoint version is advantageous since it can distinguish two ways of establishing a legitimate antecedent-trace relation, one for complements, and one for non-complements. As for the absence of that-trace effects in a language like Italian, this is generally connected to the pro-drop parameter, which allows subject extraction since its trace can be 'properly governed' by the (inflected) verb (in Spec-head agreement).

2.2.3. Relativized Minimality and Intervention

Besides cross-linguistic variation, island constraints also present asymmetries with respect to different clausal contexts. For instance, a wh-element like *how* can be extracted from a declarative clause (20), but not from an indirect question (21):

(20)   How$_k$ do you think John could solve the problem t$_k$?
(21)   *How$_k$ do you wonder whether John could solve the problem t$_k$?

Furthermore, while (21) shows that extraction of a bare wh-adverbial like *how* is sharply excluded, extraction of a lexically restricted wh-argument of the form *which NP* (cf. (22) below) is more acceptable, although perceived as deviant to some degree:

(22)   ??[Which problem]$_k$ do you wonder whether John could solve t$_k$ (in this way)?

Superseding previous accounts, in which such contrasts were dealt with

assuming that wh-elements like *which problem* can use non-local devices connecting them to their traces, Rizzi's (1990) Relativized Minimality (RM) has been designed to capture the fact that syntactic dependencies tend to be s*ensitive to the presence of similar elements*.

As the name suggests, RM defines 'local' in relative terms: a dependency cannot hold between two items in a sentence if there is a third item that (i) intervenes between the two items in terms of c-command, and (ii) can potentially engage in the same dependency. In this way, only the smallest possible dependencies are licit.

However, in its original formulation what counts as *intervention* and what it means to 'potentially engage in a dependency' are open areas of research, although there is common agreement that intervention is likely to be based on *shared syntactic features*. This means that operators naturally constitute a class of interveners, insofar as they all share a quantificational feature at the interface.

In this line of analysis, Haegeman (2012) proposes that some adverbial clauses normally involve the presence of an operator in the left periphery. Specifically taking into consideration central adverbial clauses (which are adjunct islands), it is then argued that if-clauses are derived through the A'-movement of an operator over possible words (cf. Bhatt and Pancheva 2006):

(23)   a. [….] if John arrives late […]
         b. […] [CP OP$_w$ C [John arrives late in w]] […]

Given this account, the presence of such operator triggers RM effects with respect to A'-movement operations inside the adjunct clause. And, extending the lens of analysis outside the adverbial clause, it can provide an RM-based explanation for the island properties of central adverbial clauses, since the presence of this operator hinders the A'-movement of elements out of it.
The RM framework opened a new and prolific field of research and data soon showed the necessity of some refinement. Hence, in later works, Rizzi (2001, 2004) put forth the idea that RM might be modulated by the nature of the constituent at play. This idea can be expressed as follows (from Villata et al. 2016):

(24)   Featural Relativized Minimality:
        In   . . . X . . . Z . . . Y . . .

        A local relation is disrupted between X and Y when:
            a. Z structurally intervenes between X and Y
            b. Z matches the specification in morphosyntactic features of X

        Intervention is defined in hierarchical terms through c-command:

(25)   Z structurally intervenes between X and Y when Z c-commands Y and Z does not c-command X.

The crucial idea here is that the typology of positions responsible for intervention effects is determined by the morphosyntactic features that define the different positions with respect to the local relation which is checked. This means that the locality effect is not absolute, but relativized to the kind of local relation we are

examining (for an analysis in terms of featural-specified intervention, cf. Villata et al. 2016).

2.3. Strong and Weak Islands

Cross-linguistic analysis shows that some of the conditions listed in (5)-(11) above are either not attested or weaker in some languages. In his seminal study on island effects in Italian, for instance, Rizzi (1982) observes that Subject islands effects are either not attested in this language or they produce weaker effects, if compared to English. In this respect, compare ex. (8) above with the corresponding Italian sentence in (26) below, which is considered acceptable by speakers, though marginally:

(26)   ??[Che cosa]$_k$ pensi[che Sara ha detto t$_k$] abbia offeso il professore?

(= (8))

Another case of variability can be attested with respect to specificity. Indeed, when a simple wh-phrase is extracted from a *whether* clause the result is generally low acceptability (27a), but when the bare wh-phrase is replaced by a more complex wh-phrase, namely the *which NP* one, which highlights a specific set of alternative answers, the result is typically judged to be more acceptable (27b) (cf. Pesetsky 1987, Rizzi 1990):

(27)   a. *What$_k$ do you know whether John read t$_k$?
         b. [Which of those books]$_k$ do you know whether John read t$_k$?

However, specificity does not uniformly rescue island violations, since it tends to have a noticeable effect only on relatively so-called 'weak' islands, but it has a less obvious effect on more 'severe' ones, such as the wh-island in (28) and the relative clause island in (29):

(28)   a. *What$_k$ do you know who bought t$_k$?
         b. *[Which of those books]$_k$ do you know who read t$_k$?

(29)   a. * What$_k$ do you know the man who wrote t$_k$?
         b. *[Which of those books]$_k$ do you know the man who wrote t$_k$?

Indeed, islands come in 'two flavors': strong (or absolute) and weak (or selective) islands, the latter blocking extraction of some but not all phrase types. However, this dichotomy is not particularly straightforward and the borderline between strong and weak islands is not very firm across languages (for discussion, see Szabolcsi 2006). Generally, a method to distinguish between the two types is related to the adjunct/argument or the NP/PP dichotomy. Indeed, if the island is sensible to argument or NP extractions, and these produce an unacceptable sentence, then it is a case of strong island (such as complex NPs and adjuncts). On the other hand, if only adjunct and PP extractions produce totally unacceptable sentences, then the island is considered a weak one, such as infinitival/subjunctive/modal whether-clauses.

Hence, adjunct islands (30) are strong islands, whereas wh-islands (31) are weak:[4]

(30)   *This is a topic [about which]ₖ John left [without talking tₖ]
(31)   ?? [Which problem]ₖ do you wonder how Bill could solve tₖ?

For the purpose of the present work, we will concentrate on a particular type of weak island, namely the complement clause of factive predicates.

2.3.1 Factive Islands
As it has been mentioned in §1 the main goal of the present analysis is to investigate the behavior of factive islands in Italian, based on original experimental data.
    Cinque (1990) classifies complements of factives as a paradigmatic type of weak island in which the government chain between wh-phrases and their trace is broken because the clause is not sister of a theta-marking verbal head. This view is also shared by Rizzi (1990: 113), in which it is assumed that the sentential complements of factive verbs are 'inherent Barriers' and, following Kiparsky and Kiparsky's (1971) proposal, it is proposed that "the sentential complement [of a factive predicate] is immediately dominated by an NP node, which protects it from direct selection from the verb".
    As a matter of fact, it has been pointed out repeatedly in the literature that wh-movement of subjects and adjuncts out of complement CPs of factive verbs strongly contrasts with wh-movement of internal arguments out of these CPs (cf. Kayne 1981, Zubizarreta 1982, Adams 1985) and such dichotomies have been generally explained in terms of ECP. Compare (32a-b) with extraction out from non-factive verbs like *believe* in (33a-b):

(32)   a. *Who do you regret/ understand/ forget likes this book?
        b. *How did he deeply regret that his son had fixed the car?

(33)   a. Who do you believe likes this book?
        b. How do you believe that I selected the article?

Against a narrow ECP analysis, an 'integrated' syntax-semantic featural-based approach is proposed in Rooryck (1992) to account for factive islands. In this work it is argued that the semantic properties assigned to the embedded C° by the matrix verbs also intervene in determining the relevant restrictions on wh-movement. Specifically, it is argued that wh-phrases passing through the Spec of the embedded CP of a factive verb pick up the [+wh] feature attributed to this head by Spec-Head agreement. Since this value is incompatible with the [+wh] feature of the higher C°, the relevant sentence

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[4]   Incidentally notice that additional factors seem to affect the acceptability of extraction from weak islands. For instance, all other things being equal, extraction from an untensed weak island is more acceptable than extraction from a tensed weak island. Compare (31) with (i) below:

        (i) ? [Which problem]ₖ do you wonder how to solve tₖ?

yields unacceptability. Hence, extraction out of factive islands involves the interaction between the ECP and semantic properties of intermediate C°s.

As we have seen in this Section, even though a distinction has been made between strong and weak islands, island effects are variable and instable, both within and across languages, so that a precise assessment is still controversial. As for factive islands, it has been observed that their effects can be affected by the external vs. internal Merge of the extracted constituent (Takahashi 1994) and, challenged by syntactic variability, some scholars have taken a semantic-pragmatic approach. In this perspective, Oshima (2007) shows that contextualization and semantic priming can weaken island effects; hence, it is argued that extracting a wh-phrase from a factive sentential complement is odd because of a conflict between the semantics of interrogatives and the factivity of the verb, which renders such sentences pragmatically infelicitous.

Based on previous analyses, the present work intends to offer a novel account for the variation that characterizes factive islands, taking into consideration (a) the extraction of constituents with different syntactic roles (so as to verify the relevance of Merge), and (b) the extraction of different Focus types (whose semantics does not clash with factivity). Furthermore, Focus fronting to the left periphery of the sentence can also assess the role of information-structure in factive island phenomena. This type of data and their systematic comparison through original diagnostic experiments are missing in the literature; hence, this paper can provide innovative results, aiming at enhancing the understanding of the phenomenon under investigation.
A brief description of this discourse-related category is therefore in order in the following Section.

3. Focus and Fronting

3.1. The notion of Focus

The notion of Focus has been playing a crucial role in the linguistic research of the latest decades. As a matter of fact, several definitions can be found, describing Focus from different perspectives. Among others, in Jackendoff (1972) Focus is defined as the part of information which the speaker assumes the hearer does not share with him/her. On the other hand, the "not-focused" part of the sentence (the so-called presupposition) provides background information, which is assumed to be shared by both speaker and hearer.

According to the Alternative Semantic approach, Focus should be considered as a variable. For instance, the Focus is interpreted as a potential answer to the interrogative phrase in a question in a question-answer context (Rooth 1985, 1992). Importantly, the Focus constituent expresses a contrast between the asserted answer (34b) and alternative ones (34c-d), as shown in the following examples (adapted from Rooth 1992: 84):

(34)   a. Who cut Bill down to size?   (QUESTION)
        b. [MARY]Focus cut Bill down to size.   (ANSWER)
        c. [Monique]Potential alternative cut Bill down to size. (POTENTIAL ANSWER)
        d. [Michiko]Potential alternative cut Bill down to size. (POTENTIAL ANSWER)

A crucial property of Focus is uniqueness. Indeed, since a predication can only contain one variable, only one Focus can be realized in a sentence. As a matter of fact, focalization of two elements as in (35) is agrammatical and, as such, excluded (adapted from Benincà 1988: 144):

(35)   *A GIANNI IL LIBRO darò (non a Piero, l'articolo).
        *'TO GIANNI THE BOOK I will give (not to Piero, the article).'

From a syntactic perspective within the Generative Framework, the Focus is assumed to be located in a dedicated position in the C-domain. Specifically, in Rizzi (1997) the hierarchy in (36) is proposed, including two functional positions for Topics (TopP) and one dedicated to Focus (FocP), whose specifier can host the fronted Focus (if any):

(36)   [ForceP [TopP [FocP [TopP [FinP [TP

The semantic uniqueness property of Focus is thus syntactically reflected on the fact that only one FocP node is assumed in the left periphery. However, different types of Foci have been proposed in the literature based on their different discourse-semantic properties, such as (i) Information Focus (IF), which identifies the variable in the presupposition introduced by a (possibly implicit) wh-question (Frascarelli et al. 2011); (ii) Corrective Focus (CF), which selects one proposition and simultaneously denies one explicit alternative that has been previously asserted (Bianchi & Bocci 2012); (iii) Mirative Focus (MF), which conveys the presupposition that the focused element is unexpected or surprising (Bianchi et al. 2016), and several works have argued for specific positions in the C-domain, dedicated to host these specific focus traits. For instance, dedicated positions have been proposed for Contrast (cf., Vilkuna 1995, Molnár 2006, Frascarelli et al. 2007a, 2013, Cruschina 2011, Frascarelli et al. 2013; among others), Mirativity (cf. Cruschina 2012, Bianchi and Bocci 2012, Bianchi et al. 2015, 2016), Exhaustivity (cf. Szabolcsi 1981, Kiss 1998, Horvath 2000) or to account for Focus Fronting (cf. Bianchi et al. 2015, 2016). However, since this goes beyond the scope of the present research, we assume FocP to be a multifunctional node, in which different types of Foci can be hosted (for a maximum of one focused constituent in each sentence).
        As for the interpretation of a given constituent as the Focus of the sentence, Rizzi (1997) argues that a focused XP must enter a Spec-Head relation with the FocP head (Foc°) before spell-out. Thus, a sentence like (37) below can be assumed to have the structure in (37'), in which the focused DP *il tuo libro* is moved from an TP internal position to Spec,FocP, entering a Spec-Head relation with the null Foc°:

(37)   *IL TUO LIBRO ho letto (non il suo)*
        'YOUR BOOK I read (not his)'   (adapted from Rizzi 1997: 286)

(37')   [FocP *IL TUO LIBRO$_k$* [Foc' Foc° [TP *ho letto* t$_k$]]]

Similarly, this Spec-Head relation is realized when the Focus remains in situ, as in (38), where it is assumed that the focused constituent moves in Logic Form, as shown in (38') below:

(38)   *ho letto IL TUO LIBRO (non il suo)*
        'YOUR BOOK I read (not his)'   (adapted from Rizzi 1997: 286)

(38')   [FocP <*IL TUO LIBRO*> [Foc' Foc° [TP *ho letto IL TUO LIBRO*]]]

Following Chomsky (2000, 2001), the same structure can be re-analyzed in minimalist terms. In other words, the relevant DP is interpreted as Focus through an Agree relation between a Probe and a Goal. Specifically, Foc° is assumed to be the Probe that checks its [+focus] feature on the in situ direct object (i.e., the DP *il tuo libro*):

(39)   [FocP [Foc' Foc° [FinP *ho letto* [*IL TUO LIBRO*]]]]
                        |_____|
                                AGREE

As shown above, in Italian a focused constituent can be located either in situ, that is moved to Spec,FocP, or ex situ, namely in a low position within the TP. However, Focus Fronting (henceforth, FF) seem to be subjects to specific restrictions, which will be discussed in the following section.

3.2. Focus Fronting

The overt dislocation of the Focus to Spec,FocP (i.e., FF) is used to convey a specific interpretation. For instance, in so-called 'discourse-configurational' languages (cf. Kiss, ed. 1995) fronting is argued to be used to mark Identificational Focus (i.e., contrastive and exhaustive Focus, according to Kiss' terminology). Conversely, in non discourse-configurational languages like Italian, the specific import conveyed by FF is poorly understood as its application seems to be optional.

For instance, both an *in situ* (40b) and a fronted Focus (40c) can be considered acceptable as corrective replies to what is stated in (40a)[5] (adapted from Frascarelli et al. forthcoming):

(40)   a. A: *So che Leo ha incontrato Sara alla festa.*
           'I know that Leo met Sara at the party.'
        b. B: *No, ha incontrato ELISA.*
           'No, he met Elisa.'
        c. B: *No, ELISA ha incontrato.*
           'No, Elisa he met.'

However, different scholars have shown that FF is restricted and significantly less acceptable than *in situ* Foci, at least in languages like Italian and French (among others, Carella 2019, Ylinärä et al. 2023, Frascarelli et al. forthcoming, Casentini et al. to appear).

A possible explanation to the restrictions attested for FF can be found at a

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[5]   Nevertheless, it should be noted that according to Bianchi and Bocci (2012) a corrective interpretation is generally associated with FF (even though this construction is only optional).

prosodic level of analysis. According to Truckenbrodt (1995), a focused constituent should be the most prominent element in the sentence from a prosodic viewpoint and, in a right-branching language like Italian, the most prominent element (i.e., the *focus-stressed syllable*) is the *rightmost* (cf. Cinque 1993). Hence, in the case of in-situ Focus, post-focal given information is realized as a right-hand Topic and, as such, destressed (cf. Frascarelli 2007). On the other hand, since Italian is a syllable-timed ("controlling") language (cf. Bertinetto and Bernini 2008), *pre-focal* given information is not compressed and this is the reason why, to be reduced, it is generally cliticized. So, when the Focus is fronted, its *initial* position gives rise to a marked prosodic structure (which is unacceptable or at least marginal; cf. Swerts et al. 2002, Bocci and Avesani 2015). Hence, it can be plausibly hypothesized that it is avoided, unless the presupposed part of the sentence is *topicalized*, forming an independent prosodic domain.

Finally, in Frascarelli et al. (forthcoming) it is argued that, if it is true that FF is less acceptable than *in situ* Foci, this (un)acceptability is nevertheless gradient. In this respect, the authors illustrate that FF is more acceptable with *piacere*-like verbs (cf., Belletti & Rizzi 1988) than with other types of verbs (i.e., transitive and inaccusative verbs not belonging to the *piacere*-class). Specifically, the authors explain that these differences depend on the merging position within the vP-shell (cf. Larson 1988), claiming that the fronting of the Object-focus is more acceptable when the relevant Object is merged higher than the Subject in the VP (i.e., *piacere*-like verbs). On the contrary, when the Object is merged lower than the Subject, FF is strongly disfavored with respect to *in situ* Object Focus.

3.3. Wh-interrogatives and Focus

Resuming wh-questions, it is relevant to distinguish between two types, at least in a language like Italian. Namely, direct and indirect wh-questions. While the former (41a) requires a congruent answer (41b) in which the wh-interrogative is substituted with an IF, the latter does not (and it might not require an answer at all; cf. Bocci et al. 2018, Cruschina 2021):

(41)   a. [What]$_{wh}$ did Ed drink?
        b. Ed drunk [Coffee]$_{Focus}$ (adapted from Cruschina 2021: 16)

(42)   I wonder [what]$_{wh}$ Ed drunk.

One of the main differences between these two types of wh-interrogatives is that the former (i.e., direct) cannot appear together with a Focus, contrary to the latter, as shown in the following example adapted from Rizzi (2001: 290-291):

(43)   *[*A GIANNI*]$_{Focus}$ [*che cosa*]$_{wh}$ *hanno detto?*(*non a Piero*)
        'To Gianni what did they say? (not to Piero).'

(44)   *Mi domando A GIANNI che cosa abbiano detto* (*non a Piero*)
         'I wonder what they said to Gianni (not to Piero).'

        These differences can be explained in terms of [+focus, +wh] features. On the

one hand, in direct-wh the two features [+focus] and [+wh] are bundled together (cf. Bianchi et al. 2017) and they are checked in the same position (i.e., FocP; cf. Rizzi 1997, Cruschina 2021). On the other hand, in indirect-wh [+focus] and [+wh] are unbundled (Bianchi et al. 2017) and the two features are checked in two different projections, namely FocP and WhP respectively (Rizzi 2001, Cruschina 2021). Thus, the following two structures are assumed in the literature for direct (45) and indirect wh-interrogatives (46):

(45)   [ForceP [TopP [FocP **WH** [TopP [FinP [TP

(46)   [ForceP [TopP [WhP **WH** [FocP **FOCUS** [TopP [FinP [TP

Therefore, it can be argued that the main difference between direct and indirect wh-interrogatives is that the former are focal while the latter are not. This assumption seems to be confirmed by evidence from Gungbe, which is a language that displays focus markers (FMs). As shown in example (47) below (adapted from Enoch 2007: 292), the relevant wh-phrase is followed by the FM "*wɛ*":

(47)   *Mɛnu*   *wɛ*   *du*   *lɛsi.*
        what   FM   eat   rice.
        'Who eats rice?'

However, data from Oromo show that direct wh-interrogatives can be not-focal as well. Consider the contrast between (48) and (49) below (adapted from Enoch 2007: 300-301) and relevant explanations:

(48)   *Eeňňu*   *duf-e?*
        who   come-3SG.PST
        'Who came?'

(49)   a. *Tulluu-n*   *hin-duf-n-e.*
           Tullu-NOM   NEG-come-NEG-PST
           'Tullu didn't come.'
        b. *Eeňňu-tu*   *duf-e?*
           who-FM   come-3SG.PST
           '*WHO came?'*

The contrast between (48) and (49) shows that in a language like Oromo, wh-interrogatives can be either focal or not-focal, depending on information structure. Specifically, in Enoch (2007) it is argued that wh-constituents are regular DPs that can be focalized in a Focus-presuppositions construction depending on the context (such as the one in (49a) above). Hence, we can distinguish between 'genuine' and 'not-genuine' wh- interrogatives. Specifically, genuine wh-questions are endowed with both [+focus] and [+wh] features and imply a congruent answer displaying a focused DP, whereas non- genuine wh-questions are only characterized for the [+wh] feature, lacking [+focus] (cf. Frascarelli et al. 2007b, Frascarelli 2010).

In light of all the above, we can conclude that Italian direct wh-questions are 'genuine' wh-interrogatives and, as such, they are focal elements endowed with the [+

focus] feature. Hence, it is feasible to hypothesize that their behavior is comparable to proper Foci (at least as far as their dislocation property is concerned) and that syntactic island effects, which are triggered by wh-extractions, should be triggered by FF as well. This hypothesis represents the core of our second research question as it will be illustrated in detail in the following section.

4. The present Research

4.1. Main goal and research questions

The main goal of the present paper is to investigate the behaviour of factive islands in Italian. Specifically, considering the crucial distinction between 'strong' and 'weak' islands (cf., 2.3.1. above), we intend to verify whether and to what extent the syntactic function of the moved constituent can have an impact on the (un)acceptability of extractions from Italian factive islands. Moreover, as a secondary goal, we want to investigate whether factive islands might be sensible to other types of A'-movements, namely FF. We have therefore defined two research questions, introduced in §1 above and repeated below for convenience:

(i)   Do experimental data confirm Italian factive islands as weak islands?
(ii)   Are factive islands sensible to other types of A'-movements, such as Focus Fronting, as well?

4.2. The Experiment on Wh-Extraction (design and methodology)

In order to answer the first research question, an acceptability judgment test has been designed, confronting wh-extractions from factive and bridge complements (the latter assumed to be fully grammatical). The experimental test consists in a written questionnaire, in which relevant stimuli have the form of a number of short dialogues (between two speakers), always preceded by a context. In these dialogues, the first speaker asserts something about the topic of conversation and the second follows with a question about it. Such question has been designed as a wh-question with a bi-clausal structure in which the wh-element is extracted from the embedded clause. Each stimulus presents two forms: one with a factive verb (such as *rallegrarsi* 'be happy', *stupirsi* 'be astonished', *dispiacersi* 'regret') in the matrix clause and the other with a matrix bridge verb (such as *dire* 'say', *credere* 'believe', *pensare* 'think'). This is shown in the following examples, featuring subject extraction (target sentences are signalled in bold):

(50) Factive matrix verb
[*Mauro sta raccontando il suo ultimo viaggio in montagna alla sua amica Cristina*]
'Mauro is telling about his last mountain trip to his friend Cristina'
M: *Tutti gli altri erano impegnati, ma per fortuna il fratello della moglie di Mario è venuto con me.*
'Everybody else was busy, but luckily the brother of Mario's wife came with me.'
C: *Chi ti rallegra che sia venuto con te alla fine?*
'Who are you happy that came with you in the end?'

(51) Bridge matrix verb
[*Mauro sta raccontando il suo ultimo viaggio in montagna alla sua amica Cristina*]
'Mauro is telling about his last mountain trip to his friend Cristina'
M: *Tutti gli altri erano impegnati, ma per fortuna il fratello della moglie di Mario è venuto con me.*
'Everybody else was busy, but luckily the brother of Mario's wife came with me.'
C: *Chi hai detto che è venuto con te alla fine?*
'Who did you say that came with you in the end?'

Informants have been instructed to carefully read the stimulus so as to provide a comprehensive judgement on the acceptability of the relevant wh-question, expressed on a Likert scale ranging from 0 (completely unacceptable) to 100 (completely acceptable)[6]. Furthermore, a threshold of 60 was set in order to consider a sentence to be acceptable. Notice that the test was also preceded by an instruction page so as to make sure that informants could understand the task correctly.

The experiment has a 2x4 design, testing the extraction of four different types of wh-elements (i.e., adjuncts, subjects, and argumental DOs and IOs) from two types of embedded contexts (i.e., complements of factive or bridge verbs), amounting to 8 experimental conditions. Then, three lexical items have been designed for each condition for a total 24 stimuli, paired and alternated with just as many fillers, thus obtaining a questionnaire of 48 items.

Furthermore, a number of demographic questions precedes the test, so as to assess the homogeneity of the sample. In particular, the 190 informants who took part in this experiment are all native speakers of Italian, aged between 18 and 30 y.o. (M: 20.18; SD: 2.98). They are all speakers of the Italian regional variety spoken in Lazio and most of them was born and lives in Rome, while the rest comes from other provinces of this region. At the time of the investigation, they were all first year BA students in the Degree of Languages and Linguistics at the University of Roma Tre and they all volunteered for the test in anonymous form. The test was realized and submitted online through the online survey platform LimeSurvey.

Informants' acceptability judgments have been thus normalized (i.e., converted into z-scores) and analyzed using a repeated measures ANOVA (Analysis of Variance)[7]. The ANOVA was set with the two factors as the independent variables and labelled as follows: (i) the type of matrix verb was labelled VERB and has two levels (1=bridge and 2=emotive-factive); (ii) the type of wh-element was labelled FUNCTION and has four levels (1=subject, 2=DO, 3=IO and 4=adjunct). The mean z-score was instead selected as the dependent variable. Finally, a Tukey's HSD Post

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[6]   The Likert scale used in our experiments can be considered a ratio scale, since it has an "absolute zero" (i.e., "completely unacceptable"), and equal intervals separate each contiguous point.

[7]   Considering that our data respect the "normality assumption" (since the residuals for the two ANOVA models follow a normal distribution) and that it has been recently shown that parametric tests provide outcomes comparable to non-parametric models (Enderesen and Janda 2017), we decided to statistically analyze our data by means of an ANOVA, a special case of regression analysis, which is commonly used in experimental research (Levshina 2015) and is suitable for investigations including interval or ratio scales. Furthermore, we decided to use a repeated measures ANOVA, as we tested the same informants more than once on the same dependent variable.

Hoc test was carried out, in order to identify any significant differences between the different experimental conditions.

### 4.2.1. Experiment I on Wh-Extraction (Results)

Let us now look at the results of the ANOVA reported in Figure 1 below, showing that both factors and their interaction are highly significant (i.e., p<.0001; significant results are reported in red):

Figure 1. Factors' main effect and their interaction

Effect	Repeated Measures Analysis of Variance Sigma-restricted parameterization Effective hypothesis decomposition; Std. Error of Estimate: 0,0000				
	SS	Degr. of Freedom	MS	F	p
Intercept	0.000	1	0.0000	80.477	0.000000
Error	0.000	567	0.0000		
VERB	934.447	1	934.4475	1336.293	0.000000
Error	396.494	567	0.6993		
FUNCTION	108.027	3	36.0089	46.151	0.000000
Error	1327.190	1701	0.7802		
VERB*FUNCTION	43.345	3	14.4483	21.069	0.000000
Error	1166.497	1701	0.6858		

In general, our results show that informants considered items presenting wh-extractions from factive complements to be significantly less acceptable than extractions from complements of bridge predicates, since on average the former present a raw score of 46.19 (z-score= -0.45), while the latter of 77.48 (z-score= 0.45). This is shown in Figure 2 below:

Figure 2. Extractions from bridge vs. factive complements
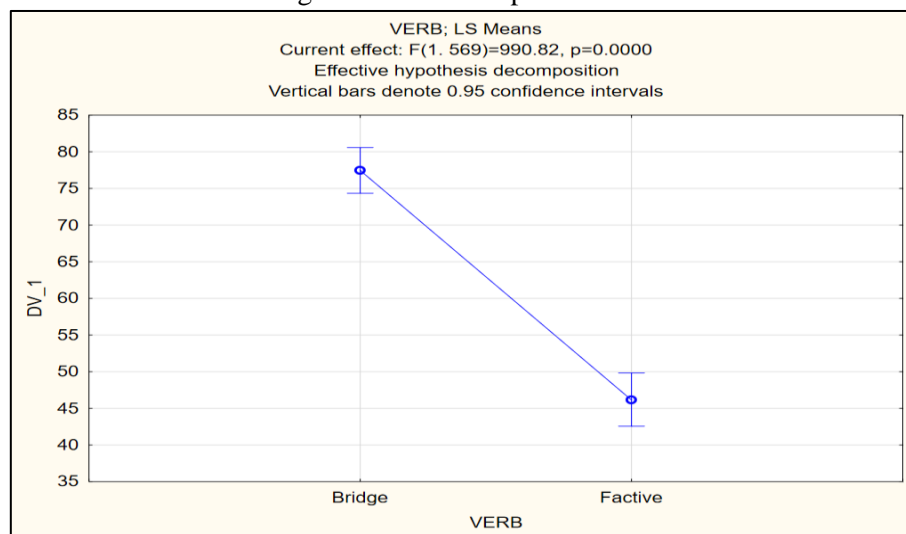
Furthermore, turning to the interaction between the two factors, Figure 3 below shows that the function of the extracted constituent has a significant influence on the acceptability of the sentence, as confirmed by the results of the relevant Tukey HSD Post Hoc test (cf. Figure 4 below):

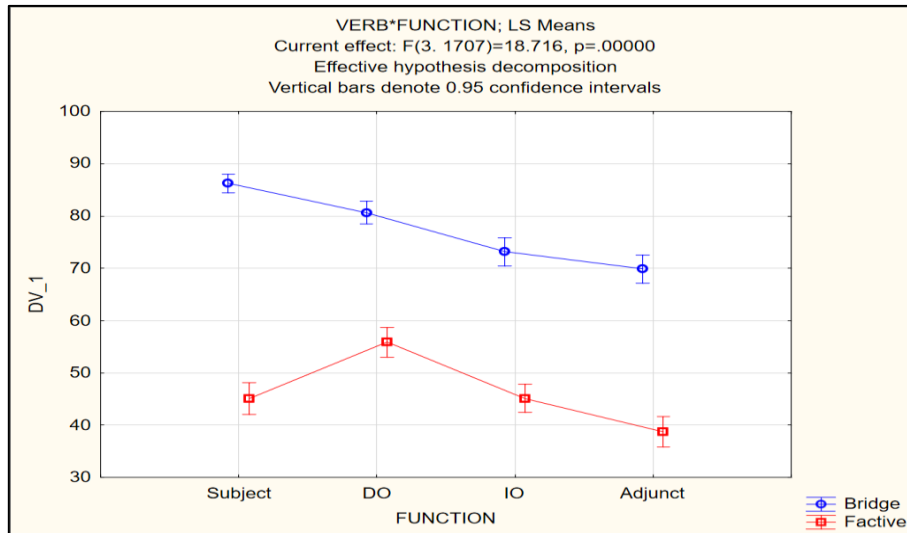**Figure 3.** Verb-Function interaction

Figure 4. Verb-Function Post Hoc

Tukey HSD test; variable DV_1
Approximate Probabilities for Post Hoc Tests
Error: Within MSE = .68577. df = 1701.0

Cell	VERB	FUNCTION	{1} .69705	{2} .54241	{3} .32602	{4} .24844	{5} -.5206	{6} -.1504	{7} -.4800	{8} -.6630
1	Bridge	Subj		0.035261	0.000032	0.000032	0.000032	0.000032	0.000032	0.000032
2	Bridge	DO	0.035261		0.000306	0.000032	0.000032	0.000032	0.000032	0.000032
3	Bridge	IO	0.000032	0.000306		0.763270	0.000032	0.000032	0.000032	0.000032
4	Bridge	Adjunct	0.000032	0.000032	0.763270		0.000032	0.000032	0.000032	0.000032
5	Factive	Subj	0.000032	0.000032	0.000032	0.000032		0.000032	0.991660	0.073109
6	Factive	DO	0.000032	0.000032	0.000032	0.000032	0.000032		0.000032	0.000032
7	Factive	IO	0.000032	0.000032	0.000032	0.000032	0.991660	0.000032		0.004850
8	Factive	Adjunct	0.000032	0.000032	0.000032	0.000032	0.073109	0.000032	0.004850	

As expected, informants always consider (more) acceptable extractions from the complements of a bridge verb (than extractions from factives), regardless of the function of the extracted constituent. Nevertheless, some degree of variation can be detected, so that in the case of bridge complements subject extractions are considered the most acceptable, DO extractions come second, while IO and adjuncts extractions do not show any significant differences between each other and, though acceptable, tend towards marginality.

Our results show a different scenario for factive complements since, in this case, DO (i.e., argument NP) extraction qualifies as the most acceptable, even though relevant items are considered significantly less acceptable than with bridge

complements (M=55.86; z-score= -0.15). Conversely, the extraction of IOs and Adjuncts (i.e., argument and non-argument PPs) is clearly perceived as problematic by informants, with the latter (M=38.69; z-score= -0.66) being significantly worse than the former (M=45.13; z-score= -0.48). These results thus seem to suggest that Italian factive complements qualify as weak islands.

Furthermore, our data show that the extraction of subjects from factive complements is also considered less acceptable by informants (M=45.07; z-score= -0.52), placing it in between the extraction of IO and adjuncts, as shown by the lack of any significant difference with either of the two conditions (*p=*.99 and *p=*.07, respectively; cf. Figure 4, cell 5 vs. 7 and 8). This result is unexpected, since subjects are argument NPs and, as such, their extraction from a weak island should not be bounded. Notice that, in this respect, we can exclude a problem of proper government, since that-trace effects are not an issue in a pro-drop language like Italian, and no problem with subject extraction arises with bridge complements (cf., Figure 2 above).

In conclusion, our data show that, in Italian, factive complements block the extraction of subjects, IOs and Adjuncts and they barely allow the extraction of DOs. Hence, they cannot really be considered 'weak', but rather an *intermediate* type of island', that is to say, an island that blocks extractions more than a weak island, but less than a strong one.

4.3. Experiment II on Focus Extraction (design and methodology)

The experiment used for this investigation was originally designed in Carella (2019) to investigate the behavior of three types of Foci in Italian, namely Information (cf., Kiss 1998), Corrective (cf., Bianchi & Bocci 2012) and Mirative Focus (cf., Bianchi et al. 2016). In brief, the original goal of such experiment was to verify whether the different semantic-pragmatic properties of these three Focus types systematically correspond to specific differences on a syntactic level. In order to achieve this goal, Carella (2019) designed an acceptability judgment test, in which the three Focus types were tested in three different syntactic positions, namely (i) *in situ*, (ii) fronted in the matrix clause (*fronted root*), and (iii) fronted in the embedded clause (*fronted embedded*), as shown in the examples below (target sentences are signalled in bold):

(52) IF

[*Elisa e Maria parlano della cena di lavoro che Leo ha organizzato ieri.*]
'Elisa and Maria are talking about the business dinner that Leo organized yesterday.'
E: *Quale specialità ha cucinato Leo per i suoi colleghi?*
   'Which specialty did Leo cook for his colleagues?'

M:	(i)	***Dicono che ha preparato [il gulash]*IF *ieri***	(in situ)
	(ii)	***[Il gulash]*IF *dicono che ha preparato ieri***	(fr.-root)
	(iii)	***Dicono che [il gulash]*IF *ha preparato ieri***	(fr.-emb.)
		'They say that he cooked [goulash]IF yesterday'	

(53) CF

[*Elisa e Maria parlano della cena di lavoro che Leo ha organizzato ieri.*]
'Elisa and Maria are talking about the business dinner that Leo organized yesterday.'
E: *Leo ha preparato le lasagne al ragù per i suoi colleghi.*
    'Leo cooked lasagna for his colleagues.'
M: (i)   ***Ti sbagli! Dicono che ha preparato [il gulash]*IF *ieri***   (in situ)
             (ii)   ***Ti sbagli! [Il gulash]*IF *dicono che ha preparato ieri***   (fr.-root)
             (iii)   ***Ti sbagli! Dicono che [il gulash]*IF *ha preparato ieri***   (fr.-emb.)
                  'You are wrong! They say that he cooked [goulash]IF yesterday'

(54) MF

[*Elisa e Maria parlano della cena di lavoro che Leo ha organizzato ieri.*]
'Elisa and Maria are talking about the business dinner that Leo organized yesterday.'
M: *Pensa un po'! Credevo che Leo non sapesse cucinare e invece…*
    'Go figure! I thought that Leo could not cook, but instead…'
             (i)   *…dicono che ha preparato [un ottimo gulash]*IF *ieri*   (in situ)
             (ii)   *…[un ottimo gulash]*IF *dicono che ha preparato ieri*   (fr.-root)
             (iii)   *…dicono che [un ottimo gulash]*IF *ha preparato ieri*   (fr.-emb.)
                  '…they say that he cooked [an excellent goulash]IF yesterday'

Moreover, in order to verify Focus behavior in different types of embedded clauses, the three Foci were tested in sentences presenting four types of matrix verbs, namely, (i) verbs of saying in a rootlike context, (ii) verbs of saying in a non-rootlike context, (iii) factive verbs and (iv) desiderative verbs. Hence, the experiment had a 3x3x4 design, testing three types of Focus, in three syntactic positions, with four different types of embedding context, for a total of 36 conditions.[8] For each condition, 12 lexical items were created, adding up to a total of 432 stimuli, paired with just as many fillers. Hence, the total amount of experimental items reached 864, a number of items which would be unsustainable for any single informant. Therefore, the test was divided into three parts, one for each type of Focus, and each part was submitted to the same informants approximately two weeks after the previous session, so as to avoid mnemonic interferences on the results. However, the 288 items of each of the three parts were still too many to be submitted to a single informant and thus they were divided into 6 different lists (48 items each) with a Latin Square design, so that each informant saw and rated 2 items for each experimental condition.

Similar to the previous test (cf. §4.2), the 120 volunteer taking part in this experiment are all first year BA students aged between 20 and 30 y.o. (M: 20. 8; SD: 1.84). They are all speakers of the Italian regional variety spoken in Lazio, mostly born and living in Rome, while the rest comes from other provinces of this region. Once again, the test was realized and submitted online through the online survey platform LimeSurvey and informants' judgments have been normalized and analyzed using a repeated measures ANOVA. In this experiment, the ANOVA was set the three factors

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8   Notice that all factors have been manipulated within participants.

as the independent variables and labelled as follows: (i) the type of Focus was labelled FOCUS and has three levels (1=IF, 2=CF, 3=MF); (ii) the syntactic position was labelled POSITION and has three levels as well (1=in situ, 2=fronted root, 3=fronted embedded); (iii) the type of embedding context was labelled VERB and has four levels (1=say root, 2=say non-root, 3=factives, 4=desideratives). The mean z-score was instead selected as the dependent variable and a Tukey's HSD test was carried out as a Post Hoc test.

4.3.1. Experiment II on Focus Extraction (Results)

The results of this experiment, reported in Figure 5 below, show that all the factors, as well as their two-by-two interactions, have a significant main effect:

Figure 5. Factors' main effect and their interactions (Carella 2019:52)

Effect	SS	Degr. of Freedom	MS	F	p
Repeated Measures Analysis of Variance (z sc.xlx) Sigma-restricted parameterization Effective hypothesis decomposition					
Intercept	1.40555	1	1.40555	1.8291	0.203379
Error	8.45269	11	0.76843		
FOCUS	3.64839	2	1.82420	7.8884	0.002613
Error	5.08752	22	0.23125		
POSITION	88.29731	2	44.14866	356.7734	0.000000
Error	2.72237	22	0.12374		
VERB	14.12202	3	4.70734	15.9920	0.000001
Error	9.71374	33	0.29436		
FOCUS*POSITION	2.58229	4	0.64557	9.8846	0.000009
Error	2.87368	44	0.06531		
FOCUS*VERB	1.61682	6	0.26947	2.7293	0.019804
Error	6.51628	66	0.09873		
POSITION*VERB	3.51644	6	0.58607	3.0915	0.009941
Error	12.51201	66	0.18958		
FOCUS*POSITION*VERB	0.81959	12	0.06830	1.1864	0.299182
Error	7.59879	132	0.05757		

For the purpose of the present research, we will only concentrate on the interaction between the syntactic position of the Focus and the type of matrix verb (i.e., POSITION*VERB). In this respect, relevant results of the analysis show that informants' judgments are affected by the embedded context as can be seen in Figures 6-7 below:
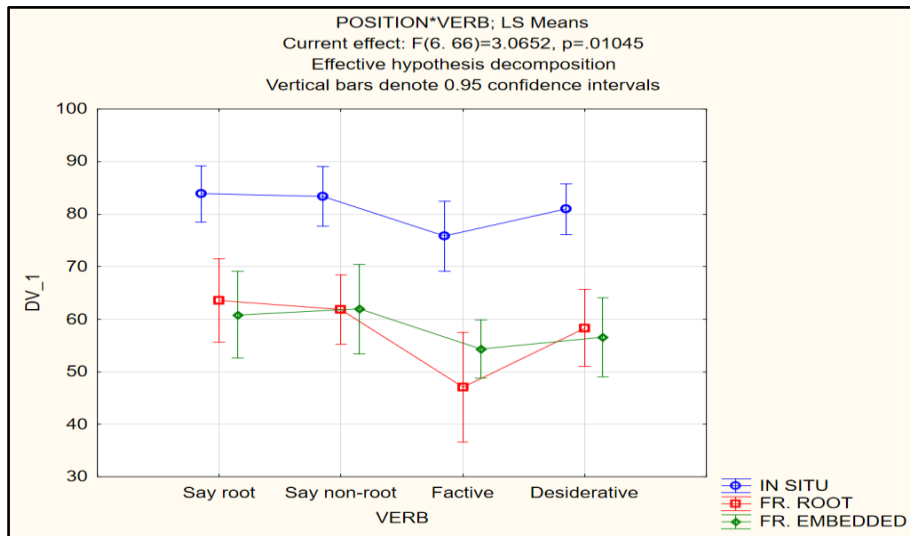
Figure 6. Position-Verb interaction

Figure 7. Position-Verb Post Hoc

Tukey HSD test; variable DV_1 (z sc)
Approximate Probabilities for Post Hoc Tests
Error: Within MSE = .18958, df = 66.000

Cell	POSITION	VERB	{1} .67204	{2} .71064	{3} .36981	{4} .57669	{5} -.1212	{6} -.1984	{7} -.8775	{8} -.3304	{9} -.2646	{10} -.2179	{11} -.5281	{12} -.4755
1	In situ	Say root		1.000000	0.149524	0.998587	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120
2	In situ	Say n-r	1.000000		0.059802	0.975628	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120
3	In situ	Factive	0.149524	0.059802		0.681257	0.000683	0.000148	0.000120	0.000120	0.000121	0.000132	0.000120	0.000120
4	In situ	Desider.	0.998587	0.975628	0.681257		0.000120	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120
5	Fr. Root	Say root	0.000120	0.000120	0.000683	0.000120		0.999807	0.000120	0.666342	0.960107	0.998394	0.009321	0.042112
6	Fr. Root	Say n-r	0.000120	0.000120	0.000148	0.000120	0.999807		0.000120	0.978222	0.999958	1.000000	0.079085	0.249890
7	Fr. Root	Factive	0.000120	0.000120	0.000120	0.000120	0.000120	0.000120		0.000185	0.000124	0.000120	0.047902	0.010802
8	Fr. Root	Desider.	0.000120	0.000120	0.000120	0.000120	0.666342	0.978222	0.000185		0.999960	0.993916	0.738550	0.956729
9	Fr. Emb.	Say root	0.000120	0.000120	0.000121	0.000120	0.960107	0.999958	0.000124	0.999960		0.999999	0.318856	0.655340
10	Fr. Emb.	Say n-r	0.000120	0.000120	0.000132	0.000120	0.998394	1.000000	0.000120	0.993916	0.999999		0.125272	0.352592
11	Fr. Emb.	Factive	0.000120	0.000120	0.000120	0.000120	0.009321	0.079085	0.047902	0.738550	0.318856	0.125272		0.999996
12	Fr. Emb.	Desider.	0.000120	0.000120	0.000120	0.000120	0.042112	0.249890	0.010802	0.956729	0.655340	0.352592	0.999996	

As is shown, *in situ* Foci are considered the most acceptable by informants, while fronted ones are always judged significantly worse. However, while a Focus fronted at the beginning of the embedded clause (i.e., one which remains within the complement clause) does not present any significant difference with respect to the type of matrix verb, fronted root Foci do. Interestingly, a Focus fronted at the beginning of the matrix clause is significantly less acceptable when combined with a factive matrix verb, as confirmed by the relevant Post Hoc test (cf. Figure 7). These results finally indicate that the extraction of the Focus from a factive complement lowers the acceptability of the sentence, thus suggesting a positive answer to our second research question, that is to say, factive islands in Italian are indeed sensible to fronting operations in Focus constructions.

5. Conclusions

As said in Section 1, the main goal of the present analysis is to investigate the behavior of factive islands in Italian. Moreover, as a secondary goal, we wanted to investigate whether factive islands might be sensible to other types of A'-movements, namely Focus Fronting.
Hence, the present study is aimed to answer the two following research questions:

(i)   Do experimental data confirm Italian factive islands as weak islands?
(ii)   Are factive islands sensible to other types of A'-movements, such as Focus Fronting, as well?

Relevant analyses have been based on the results of two experimental tests. The first one has been specifically designed to check whether Italian factive islands are weak islands, confronting wh-extractions of subjects, DOs, IOs and adjuncts from factive and bridge complements. The second test, on the other hand, was originally designed in Carella (2019) to investigate the behavior of Information, Corrective and Mirative Focus. Specifically, we concentrated on the data related to the interaction between the syntactic position of the Focus constituent and the type of matrix verb, thus showing that the acceptability of FF is influenced by the presence of a factive matrix verb.

Based on these results, we can conclude this investigation saying that the answer to our first question (cf. §§ 1 and §4.1 above) is negative, since relevant data show that, in Italian, factive complements block the extraction of subjects, IOs and Adjuncts, and they barely allow the extraction of DOs as well. Hence, factive complements cannot be considered 'weak' but, rather, *intermediate* islands, as their 'blocking quality' is greater than that of a weak island, even if it is not as total as in the case of strong islands.

On the other hand, the answer to our second question is positive, since the extraction of the Focus from a factive complement lowers the acceptability of the sentence, thus indicating that factive islands in Italian are indeed sensible to fronting operations in Focus constructions.

Based on these results, we reckon that the present work can be considered a valuable contribution to linguistic research in that it has brought evidence for the existence of a new category of syntactic island - the *intermediate* one - thus calling for a revisiting of the traditional dual classification.

Then, it was also shown that island effects are not exclusive to wh-movement (so far exclusively treated in this type of analysis), but can be also found in Focus fronting, suggesting that they can apply to any type of A'-movement and opening the way for future cross-linguistic research on dislocations such as VP Preposing, Topicalization, Locative inversion and V2 phenomena.

Furthermore, this work stimulates future research as it opens up the question as to whether the position of Compl,VP is less blocking than Spec,VP, although the latter is an 'edge' according to minimalist tenets.

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