A Factivity analysis for Italian Questions: differentiating perché and come mai
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GOALS:
• Show that *come mai* ‘how come’ (lit. how ever) is factive
  o distributional differences with *perché* ‘why’
  o these differences pattern like the English ones
• Show that factivity, along with a detailed account of the left periphery, can
  account for lack of a long distance reading
  o *come mai* and *how come* must sit higher in the left periphery due to factive
  operator
• Show that distribution that occurs with *how come* is not a historical accident, as it
  occurs cross-linguistically

Introduction
• *Come mai* ‘how come’ behaves in many ways like *perché* ‘why’ (Rizzi 2001)
• *Come mai* and *perché* do not require inversion (1)-(4)

1. Perché Gianni è venuto? [wh-subject-verb]  
   Why Gianni has left
2. Perché è venuto Gianni? [wh-verb-subject]  
   Why has left Gianni
3. Come mai Gianni è partito? [wh-subject-verb]  
   How come Gianni has left
4. Come mai è partito Gianni? [wh-verb-subject]  
   How has left Gianni
• This can be contrasted with the rest of the *wh* words in Italian, which do require
  inversion, as shown in (5) – (10).
5. *Come Gianni è partito? [wh-subject-verb]  
   How Gianni left
6. Come è partito Gianni? [wh-verb-subject]  
   How left Gianni
   Where Gianni went
8. Dove è andato Gianni? [wh-verb-subject]  
   Where went Gianni?
9. *Che cosa Gianni ha fatto? [wh-subject-verb]  
   What Gianni did

1 In fact, the examples in (2) & (4) are right dislocation of the subject, not subject-verb inversion: which is
the type of inversion which will be referred to for the remainder of the talk.
2 All examples in this section taken from Rizzi 2001
10. Che cosa ha fatto Gianni?  
   *What did Gianni*
   *Perché and come mai* both allow adverbials to precede the verb (11) & (12)

11. Perché (i tuoi amici) già hanno finito il lavoro?  
   *Why (your friends) already have finished the work*
12. Come mai (voi) già siete tornati a Milano?  
   *How come (you) already have come back to Milan*

- Other *wh* words do not allow adverbials to precede the verb (13) – (14)

13. Dove (*già) siete (già) andati?  
   *Where (already) have (already) gone*
14. Che cosa (*già) hanno (già) fatto?  
   *What (already) have (already) done*

- There are also unreported differences between *perché* and *come mai*
- These differences pattern much like the differences between *why* and *how come* in English.

**How come in English**
- There are a variety of ways in which *how come* differs from *why*.

**Rhetorical questions**
- *How come* not allowed in rhetorical questions (16) & (18), while *why* can be (17) & (19)

**Modals**
- 15. Why would I do that?
- 16. #How come I would do that?

**Non-finite complement**
- 17. Why go to the store, we already have milk?
- 18. *How come go to the store, we already have milk?*

**Suggestions**
- *How come* not allowed in suggestions (20), while *why* can be (19)

- 19. Why don’t we go to the store?
- 20. #How come we don’t go to the store?

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3 It is possible that suggestions are a subset of rhetorical questions. I do not take a position either way, and the analysis does not rely on this point.
Question Quantifier Interaction
- *How come* can not undergo question-quantifier interaction (22), while *why* can (21)

21. Why does everyone like Joe?
   *Why>*every, *every>*why
22. How come everyone likes Joe?
   *How come>*every, *every>*how come

Long Distance Interpretation
- *How come* not allowed to interpreted long distance (24), while *why* can (23)

23. Why did Joe say Stacey ordered pizza? [ambiguous]
24. How come Joe said Stacey ordered pizza? [matrix only]

Come Mai in Italian
- In Italian, there are distributional differences between *come mai* and *perché*

Rhetorical Questions
- *Come mai* not allowed in rhetorical questions (26) & (28), while *perché* can (25) & (27)

Conditional
25. Perché dovrebbe partire?
   *why should*CONDITIONAL.3sg. leave.INF
   ‘Why should he leave?’
26. #Come mai dovrebbe partire?
   *how ever should*CONDITIONAL.3sg. leave.INF
   ‘How come he should leave?’

Non-finite complement
27. Perché andare al negozio quando abbiamo di già il latte?
   *Why go*INF to-the store when have.1pl already the milk
   ‘Why go to the store when we already have milk?’
28. *Come mai andare al negozio quando abbiamo di già il latte?
   *how ever go*INF to-the store when have.1pl already the milk
   ‘How come go to the store when we already have milk?’

Suggestions
- *Come mai* not allowed in suggestions (30), while *perché* can (29)

29. Perché non andiamo al cinema?
   *why not go* to-the movies
   ‘Why don’t we go to the movies?’
30. #Come mai non andiamo al cinema?
   *how ever not go* to-the movies
   ‘How come we don’t go to the movies?’
Question Quantifier Interaction

- Not available in Italian with why-type words

Long Distance Interpretation

- Come mai can not be interpreted long distance (33) & (34), while perché can be interpreted long distance with inversion (32)

31. Perché Gianni ha detto che si é dimesso? [non-inverted, matrix only]
   Why Gianni has said that he resigned
   ‘Why did Gianni say that he resigned?’

32. Perché ha detto Gianni che si é dimesso? [inverted, embedded only]
   Why has said that he resigned
   ‘Why did he say that he resigned?’

33. Come mai Gianni ha detto che si é dimesso? [non-inverted, matrix only]
   How ever Gianni has said that he resigned
   ‘How come Gianni said that he resigned?’

34. ?? Come mai ha detto Gianni che si é dimesso? [inverted, ??]
   How ever has said that he resigned
   ‘How come he said that he resigned?’

Analysis

- Fitzpatrick (2005) claims that how come, in English, is factive, based on evidence from rhetorical questions and question quantifier interaction.
- I show corresponding evidence in Italian and using data from both these languages, I present that the factivity analysis can also extend to describe facts concerning long-distance questions.

The factivity analysis for English

- Fitzpatrick (2005) proposed a that how come presupposes the truth of its complement
- One way this is implemented is to say that how come has a factive head, which selects for a complement which must be presupposed true.
- I assume that it is a surface constraint that how come must be in a spec-head relation with the factive operator

Presupposition

- Presuppositions in questions are what are required for a successful speech act (Katz 1972)
- Most questions contain presuppositions, as in (35)

35. Why did you go to the store?
   => you went to the store

- However, the presupposition required in questions is needed for felicitous speech acts
• It is not the case that *why* requires the truth of its complement, as it can be used in suggestions, as shown in (36)

36. Why don’t you go to the store?
   *=> you don’t go to the store

• Presupposition, in this talk, will refer to requiring the truth of the complement

Rhetorical Questions
• Rhetorical questions not allowed with *how come*, as shown in (16) and (18)
• Rhetorical questions permitted with *why* (15) and (17)
• Complements are of various constructions (no one syntactic analysis)
• Rhetorical Questions are negatively biased
• This negative bias contradicts the presupposition requirement of *how come*

Suggestions
• *how come* can not be used in suggestions (Conroy 2005), as shown in (20)
• Suggestions are fine with *why*, as shown in (19)
• Suggestions are not presupposed

Question Quantifier Interaction
• How come can not undergo question-quantifier interaction (Collins 1991), as shown in (22)
• *Why* can undergo question-quantifier interaction, as shown in (21)
• An analysis that Fitzpatrick provides is that the quantifier is stuck in a factive island.
• An alternative analysis is that the syntactic position of *how come* is too high for the quantifier. I will show that the factive operator forces this syntactic position.

Same Analysis works in Italian
Rhetorical Questions
• Rhetorical questions not allowed with *come mai*, as shown in (26) and (28)
• Rhetorical questions permitted with *perché* (25) and (27)
• Complements are non-finite and conditional
• Rhetorical Questions are negatively biased
• This negative bias contradicts the presupposition of *come mai*

Suggestions
• *Come mai* can not be used in suggestions, as shown in (30)
• Suggestions permitted with *perché* (29)
• Suggestions are not presupposed

Question Quantifier Interaction
• Not permitted in Italian with *why*-type words
Summary
- Factive analysis holds for both English and Italian

Extending the factivity analysis
- Does the factivity analysis account for the lack of long distance interpretation?

Left Periphery: the syntax of *come mai*

Structure of the Left Periphery (Rizzi 1997)
- Rizzi proposed the CP layer has a structure as shown in (37)

37. Force (Topic*) Focus (Topic*) Finiteness IP

Evidence for two Complementizer Positions (Rizzi 2001)
- Evidence from embedded questions in Italian suggests that there are two distinct complementizer positions (Rizzi 2001)
- Italian has two complementizers, *se* ‘if’ and *che* ‘that’
- While both can be followed by focus phrases (examples omitted), the two complementizers are not identical with respect to distribution of topic phrases
- *Se* can both be preceded and followed by a topic phrase (38)-(39), while *che* can only be followed by a topic phrase (40)-(41)

38. Non so *se*, a Gianni, avrebbero potuto dirgli a verità [se > TOP]
   ‘I don’t know if to Gianni, they could have said the truth’
39. Non so, a Gianni, *se* avrebbero potuto dirgli a verità [TOP > se]
   ‘I don’t know, to Gianni, if they could have said the truth’
40. Credo *che* a Gianni avrebbero potuto dirgli a verità [che > TOP]
   ‘I believe that to Gianni, they should have said the truth to him’
41. *Credo, a Gianni, *che* avrebbero potuto dirgli a verità [*TOP > che*]
   ‘I believe, to Gianni, that should have said the truth to him’

- This suggests *che* occupies a position higher than *se* in the CP domain
- These two distinct complementizer positions result in the structure shown in (42), and is extended to matrix questions:
• Wh-criterion is a requirement of all question words (Rizzi 1996), shown in (43).

43. Wh-Criterion: a wh operator and a head endowed with the wh feature must be in a spec-head configuration at s-structure

• IntP is automatically specified for the wh-criterion (head is endowed with +wh features) (figure A)
• A wh in FocP requires verb movement to satisfy the wh-criterion (since verbs are assumed to carry the relevant features) (figure B)

**Perché**

• Can sit in both of these spots, since it can appear inverted and non-inverted (as shown in (31) & (32), repeated here)

44. Perché **Gianni ha detto** che si é dimesso?  [non-inverted]  

*Why Gianni has said that he resigned*
‘Why did Gianni say that he resigned?’

45. Perché ha detto Gianni che si é dimesso? [inverted]
   *Why has said that he resigned*
   ‘Why did he say that he resigned?’

**Come mai**
- Can not appear in an inverted context (46), repeated from (34)

46. ?? Come mai ha detto Gianni che si é dimesso? [inverted]
   *How ever has said that he resigned*
   ‘How come he said that he resigned?’

- Only occurs in IntP, which does not require inversion
- Why? Factive operator sitting in the head, which blocks inversion
- Any derivation where *come mai* sits in FocP will crash, due to inability to satisfy wh-criterion

47. \([\text{FocP come mai } [\text{FOC C\_FACT [IP …]]}]\)

48.  

\[
\text{FocP} \\
\text{come mai} \\
\text{C\_FACT} \\
\text{IP} \\
\text{Spec-Head Relation} \\
\text{Verb}
\]

- In (47), the verb can not move up (to the head of FocP), and wh-criterion fails.
  - This derivation fails

- Due to its factivity, *come mai* must sit in IntP.

**Long distance interpretation**
- I will show why only *wh* phrases that can occur in FocP can receive a long distance interpretation
- Since *perché* can occur in FocP, it can receive a long distance interpretation
- *Come mai* is restricted to matrix interpretations because it must sit in IntP.
- In Italian, long distance questions originate in FocP (Rizzi 2001)

*Perché*
Long distance derivation with *perché*
• Long distance *wh* phrases are generated in the embedded FocP

49. Gianni ha detto che si \([_{\text{FocP}} \text{perché} [_{\text{IP}} \text{é dimesso}]]\)
   \(\text{Gianni has said that why has resigned}\)
   \[\text{wh movement yields derivation in (50)}\]

50. \([_{\text{FocP}} \text{perché} \text{Gianni ha detto che si} [_{\text{FocP t [IP è dimesso]}]}]\)
   \(\text{why Gianni has said that has resigned}\)
   \[\text{verb raises to satisfy the *wh* criterion, resulting in (51)}\]

51. Perché ha detto Gianni che si é dimesso?
   \(\text{Why has said Gianni that has resigned}\)

52.

\[
\begin{array}{c}
\text{FocP} \\
\text{Perché} \\
\text{IP} \\
\text{Spec-Head} \\
\text{Verb} \\
\end{array}
\]

\(\text{Come Mai}\)

Long distance derivation with *come mai*

• There are 2 possible derivations of an embedded question with *come mai*
  o *Come mai* is generated in the embedded clause with the factive operator
  o The factive operator is generated in the matrix clause with *come mai* generated in the embedded clause

\(\text{Derivation one}\)

53. Gianni ha ditto che si \([_{\text{FocP come mai C}_{\text{FACT}} [_{\text{IP è dimesso}]}]}]\)
   \(\text{Gianni has said that how come has resigned}\)
   \[\text{wh movement results in (54)}\]

54. \([_{\text{FocP Come mai Gianni ha detto che si} [_{\text{FocP t C}_{\text{FACT}} [_{\text{IP è dimesso}]}]}]}]\)
   \(\text{how come Gianni has said that has resigned}\)
• This derivation will not converge because the surface locality constraint between *come mai* and its factive operator has been broken.

*Derivation two*  
55. \( C_{\text{FACT}} \) Gianni ha detto che si \([\text{FocP come mai IP é dimesso}]\)  
   Gianni has said that how come has resigned  

\[ \downarrow \]  
wh movement results in (54)  

56. \([\text{FocP Come mai } C_{\text{FACT}} \text{ Gianni ha detto che si } [\text{FocP t IP é dimesso}]]\)  
   how come Gianni has said that has resigned  

57.  

\[ \text{FocP} \]

\[ \text{Come mai} \]

\[ \text{IP} \]

\[ \text{C}_{\text{FACT}} \]

\[ \text{Spec-Head} \]

\[ \text{Relation} \]

\[ \text{Verb} \]

• *wh* criterion is still not satisfied, and requires verb raising.  
• \( C_{\text{FACT}} \) is blocking this movement, so the *wh* criterion fails.  

• Therefore, due to its factive head, *come mai* can not receive a long distance interpretation.  

• However, a derivation in which *come mai* is base generated in IntP, will converge  

58.  

\[ \text{IntP} \]

\[ \text{Wh-criterion satisfied} \]

• This results in a matrix-only interpretation
Implications for English

- Same analysis holds for *why* and *how come*
- Why can only sit in FocP, long distance derivations converge.
- *how come* must sit in IntP, and can not get long distance movement
- IntP position explains why *how come* can not invert, as in (59)-(60).

59. How come Stacey likes chocolate?
60. *How come does Stacey like chocolate?*

- Factivity operator sitting in head, any derivation in FocP will crash because the operator is a blocker for inversion (*wh* criterion failure)
- Converging derivation will have *how come* in IntP, resulting in non-inversion

Question-Quantifier Interaction

- Recall, I proposed an alternative analysis for why question-quantifier interaction is not permitted with *how come*, and that is because it sits too high for the quantifier
- If quantifiers move to a topic phrase lower than IntP, this would explain why Question-Quantifier Interaction is not permitted with the higher sitting *wh*-phrases

61.

Therefore, we would expect that Q-Q be permitted with question words that sit in FocP, but not IntP
- This is the case in Italian, as shown in (62)-(63)
62. Cosa ha proposto ogni senatore nella commissione? [both readings]
   *What ha suggested every senator in-the committee*
   ‘what did every senator in the committee suggested?’

63. Perché ogni senatore nel commissione era in ritardo ieri? [non-pair list only]
   *Why every senator in the committee was late yesterday*
   ‘Why was every senator in the committee late yesterday?’

- This suggests that it is the position of *how come* and *come mai* that forbid question-quantifier interaction, an indirect result of factivity

Conclusions
- *Come mai* is factive
- Due to the factivity operator, both *come mai* and *how come* are forced to IntP
- No long distance movement from this position
- Question-quantifier interaction facts explained by position in CP domain

References

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