Reflexive Constructions in German, Spanish and French as a Product of Cyclic Interaction

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1. Introduction

- German (1a,2a), Spanish(1b, 2b), and French (1c, 2c) all have reflexive and anticausative "*se*":

(1)a. Johann wäscht sich.   (2)a. Die Tür öffnete sich.
     John   washes self   the door opened self

  b. Juan se   lava.   b. Se   abrió   la puerta.
     John Refl$_{se}$ washes   AntiC$_{se}$ opened the door

  c. Jean se   lave.   c. La porte s'est   ouverte.
     John Refl$_{se}$ washes   the door AntiC$_{se}$-is opened
     'John washes himself.'   'The door opened.'

- Spanish (3a) and French (3b) have passive *se* but German (3c) lacks it:

(3)a. Se   vendieron los pisos.   b. Les appartements se sont vendus.
     Pass$_{se}$ sold   the apartments   the apartments Pass$_{se}$ were sold

  c. *Die Wohnungen verkauften sich.
     the   apartments   sold   self
     Intended: 'The apartments were sold.'

Main claim: Pass$_{se}$ developed as a result of two diachronic processes:

     a. the reflexive object (*se*) cycle (ROC) – reflexive pronouns are grammaticalized into valency marking inflection on the verb (Maddox 2016).

     b. the subject agreement cycle (SAC) – subject pronouns are grammaticalized into subject agreement inflection on the verb (Van Gelderen 2011).

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Analysis:

- The structure of Pass$_{se}$ crosslinguistically → [$_{VoiceP}$ *pro* Voice$_{se}$ [$_{VP}$ DP]]

- Cyclic interaction: two independent linguistic cycles can conspire to yield various results (Bahtchevanova & van Gelderen 2016).

- The ROC allows for the reanalysis of *se* as the spellout of Voice; the SAC allows for the licensing of *pro* in Spec,Voice.

Prediction: the types of reflexive constructions that a language has depends on whether it has *pro* and whether it has grammaticalized the reflexive as verbal inflection.

Presentation format:
        Section 2, The Reflexive Object Cycle
        Section 3, The Subject Agreement Cycle
        Section 4, Cyclic Interaction
        Section 5, Conclusion

2. The Reflexive Object (*Se*) Cycle (Maddox 2016)

2.1 *Background*

- In Latin and Old Spanish *se* was a reflexive pronominal argument DP; in MidS *se* is reanalyzed as a D head; in MS *se* is reanalyzed as *v*/Voice head, which marks valency.[2]

- The change in status is due to a process of grammaticalization, the "reflexive object cycle" (3), which is a subtype of the object agreement cycle.

(3)	Stage (a)	Stage (a) → (b)	Stage (b)	Stage (b) → (c)
	Latin	Old Spanish	Middle Spanish	Modern Spanish
	sē = DP	*se* = DP	*se*: DP > D	*se* = Voice

2.2 *Linguistic cycles (Van Gelderen 2011)*

- Language change takes place based on principles of economy.

(4)   Head Preference Principle (HPP):
       Be a head rather than a phrase.

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[2] Latin (200 BCE-500 CE), Old Spanish (1200-1400), Middle Spanish (1400-1600), Modern Spanish (1600-present).

- Examples of reanalysis due to the HPP: demonstrative pronoun *that* > complementizer, adverb > aspect marker, pronoun > agreement, etc.

- Tests to distinguish heads from phrases (Zwicky & Pullum 1983, Cardinaletti & Starke 1999, Mithun 2003):
    - Phrases can be coordinated, modified; can occur in Spec position; optional.
    - Heads cannot be coordinated, modified; obligatorily occur in head positions, cannot undergo XP movement.

2.3 *Reflexive object pronouns > valency marking morphemes*

- Reflexives are regularly grammaticalized as valency markers (Haspelmath 1990, *inter alia*). This is a cycle similar to the Object Agreement Cycle (Van Gelderen 2011). *Se/si* started this cycle in Latin (Maddox 2016).

(5)   Stages of the Reflexive Object Cycle (ROC):
       Stage (a): DP pronoun   → $[_{vP} v [_{VP} V DP]]$
       Stage (b): D-clitic   → $[_{vP} D + V + v [_{VP} <D> + <V> [_{DP} <D>]]]$
       Stage (c): Spellout of *v*/Voice → $[_{vP} v_{se} [_{VP} V (pro/DP)]]$

2.3.1 Status of *se* diachronically[3]

- Diachronic patterns of movement, coordination, and modification are evidence of the reanalysis of *se* from a full DP to a functional head/inflection.[4]

2.3.1.1 Stage (a) moving to stage (b) – Old Spanish (1200-1400)

- OS had Refl$_{se}$ (6), AntiC$_{se}$ (7), and Pass$_{se}$ (8)[5].

(6)   Es semejante al   puerco que … se   baña en el cieno.[6]
       is   similar to-the pig   which Refl$_{se}$ bathes in the mud
       "He is similar to the pig, which bathes itself in the mud."

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[3] For Latin, see Appendix 1.

[4] *Se* also suffered phonological attrition, as with *sik* in Old Norse.

[5] OS also had pronominal/inherent *se*. It follows the same patterns with respect to interpolation as other types of *se*. Impersonal *se* is not clearly distinguishable from passive *se* until the seventeenth century.

[6] Ferrand Martínez, *Libro del cavallero Cifar,* fol. 42r; 1300

(7)　　E cuenta aquí la Biblia que　se　　abrió　estonces la tierra bien allí.[7]
　　　　and tells　here the Bible that AntiC_{se} opened　then　　the earth well there
　　　　 "And here the Bible states that the earth indeed opened up there."

(8)　　¡Con tal　cum esto se　　vençen　　moros del campo![8]
　　　　 with such with this Pass_{se} conquers Moors of-the　field
　　　　"In this way Moors are conquered in the field."

- OS *se* -- distribution of a full DP; can be separated from the verb (interpolation).

(9)　　Desí mando que　se　non rasiessen.[9]
　　　　thus　order that Refl_{se} not　shave
　　　　"Thus I order that they not shave (themselves)."

(10)　　este algodon es atal　que　se　　non quema por fuego.[10]
　　　　 this cotton　is such that AntiC_{se} not　burns　by　fire
　　　　 "This cotton is such that it does not burn from fire."

(11)　No hay guisa por que　se　　esto diga.[11]
　　　　not is fashion by which Pass_{se} this　say
　　　　"There is no way by which this is said."

- *Se* can occupy the same position as a stressed pronoun or a quantified DP.

(12)　Los sabios dizen que quien **a　　sí non guarda**　a　　otri non fará pro.[12]
　　　　the wise　　say that who DOM self not defend DOM other not　do good
　　　　"The wise men say that he who does not defend himself will not do good to another."

(13)　si　el enperador **todas estas cosas non guarda** et yerra en todas...[13]
　　　　if the emperor　　all　these things not defends and errs in everything
　　　　"If the emperor does not defend all these things and erres in everything..."

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[7] Alfonso X, *General Estoria;* 1270
[8] Anonymous, *Cid*, line 1753; 1207
[9] Alfonso X, *General Estoria, Primera Parte*, fol. 277V; c. 1275
[10] Anonymous, *Lapidario*, fol. 17R; c. 1250

[11] Anonymous, *Calila e Dimna*, Chap. 3; 1251
[12] Anonymous, *Calila e Dimna*, para. 9; 1251
[13] Juan Manuel, *Libro de estados*, para. 12; 1327-1332

(14) si **se non guarda** delo bever tanto...[14]
      if Refl$_{se}$ not guards from-it drink so-much
      "If he does not protect himself from drinking so much of it..."

- *Se* can climb, but so can lexical DPs. OS climbing is XP-adjunction, not head movement (Rivero 1991).

(15) et quisiere meter<u>se</u> so otro sennorío.[15]
      and should-wish place-Refl$_{se}$ under other lordship
      "And should he wish to place himself under another lord's authority..."

(16) e quisiere quitar <u>la heredat o el huerto</u>.[16]
      and should-wish take-away the estate or the garden
      "And should he wish to take away the estate or the garden..."

(17) qual quier que <u>sus cosas</u> quisiere vender.[17]
      which ever that his things should-wish sell
      "Whosoever should wish to sell his things..."

(18) Todo omne que <u>se</u> quisiere saluar d'estas calonnyas...[18]
      every man who Refl$_{se}$ should-wish save from-these punishments
      "Every man who should wish to save himself from these punishments..."

- Patterns of auxiliary selection support the analysis of *se* as an internal argument. In Italian, passives (19) and unaccusatives select BE (20).

(19) La lettera è scritta.   (20) Giovanni è venuto.
      the letter is written   Giovanni is come
      "The letter is written."   "Giovanni came."

- Transitive verbs select HAVE.

(21) Giovanni ha accusato Luigi.   (22) Giovanni ha accusato se stesso
      Giovanni has accused Luigi   Giovanni has accused self very
      "Giovanni accused Luigi."   "Giovanni accused himself."

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[14] Juan Manuel, *Libro de estados*, para. 13; 1327-1332
[15] Anonymous, *Libro de los fueros de Castiella*, para. 318; c. 1284
[16] Anonymous, *Fuero viejo de Castilla*, para. 9; 1356
[17] Anonymous, *Fuero de Cuenca*, Book 4, sect. 1; 1284-1295
[18] Anonymous, *Fuero viejo de Castilla*, para. 1; 1356

- Reflexive compound verbs select BE, suggesting they have intransitive structure like passives and unaccusatives (McGinnis 2004).

(23) Giovanni si è accusato.
     Giovanni Refl$_{se}$ is accused
     "Giovanni accused himself."

- OS was also an auxiliary selection language, but patterns differently than Italian. Unaccusatives still select BE but compound reflexives select HAVE.

(24) Minaya Alvar Fáñez essora es llegado.[19]
     Minaya Alvar Fáñez then is arrived
     "Minaya Alvar Fáñez then arrived."

(25) como ninguno de los athenienos no se   a vestido de negro por mi.[20]
     because none of the Athenians not Refl$_{se}$ has dressed of black for me
     "...because none of the Athenians has dressed in black for me."

(26) mas es necesario que quando el se   ha echado en tierra...[21]
     but is necessary that when he Refl$_{se}$ has thrown on ground
     "But it is necessary that when he has cast himself to the ground..."

Conclusion:

- In OS, *se* was still a DP. It could undergo XP movement, and occupy the same position as full DPs. Since reflexive compounds selected the HAVE auxiliary, they had transitive structure, with *se* being the internal argument.

- In OS, *se* was at stage (a), moving toward stage (b) for some speakers, since unlike in Latin, it could not be modified or coordinated.

2.3.1.2 Stage (b) – Middle Spanish (1400-1600)

- Interpolation, already a minority pattern in OS, is lost.

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[19] Anonymous, *Cid*, line 2449; 1207

[20] Juan Fernández de Heredia, *Traducción de Vidas paralelas de Plutarco, III*, fol. 176v; 1379-1384

[21] Ferrer Sayol, *Libro de Pallado BNM 10211*, para. 115; 1380-1385

(27) …cuanto más por hecho de mujeres que **se** ligeramente gana y pierde.[22]
      much more for deed of women that Pass$_{se}$ easily   wins and loses
   "…how much more on account of the action of women, which is easily won and
   lost."

(28) que **se**   non ficiese deservicio de Dios e   daño de la tierra.[23]
      that Pass$_{se}$ not   do   disservice of God and damage of the earth
   "...that a disservice not be made to God and damage to the earth..."

- Table 1 summarizes the rate of loss based on a CORDE search for interpolation with
  negation, the most common type of interpolation[24].

Century		Pattern 1: SE + Neg + V	Pattern 2: Neg + SE + V
Old Spanish	1200-1300	25.2	74.8
	1300-1400	11.8	81.2
Middle Spanish	1400-1500	6.2	93.8
	1500-1600	.5	99.5
Modern Spanish	1600-1700	.1	99.9
	1700-1800	0	0

Table 1. Loss of interpolation by century.

- Nevertheless, auxiliary selection with reflexive compounds continues as in OS.

(29) a tal puncto el miserable ombre es llegado.[25]
      to such point the miserable man   is arrived
   "The miserable man has arrived to such a point."

(30)   ca   el mesmo se   ha cortado la lengua.[26]
      because he himself Refl$_{se}$ has   cut   the tongue
   "Because he himself has cut out his own tongue."

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[22] Garci Rodríguez de Montalvo, *Amadís de Gaula*, Book II; 1475-1500
[23] Jerónimo Zurita, *Anales de la corona de Aragón, Primera Parte*, para. 232; 1562
[24] CORDE search conducted on October 12, 2015 at 4:00 p.m. See also Chenery (1905) and Ramsden (1963) for additional quantitative data on interpolation.
[25] Enrique de Villena, *Traducción y glosas de la Eneida Libros I-III*, para. 24; 1427-1428
[26] Antón de Zorita, *Árbol de Batallas* (de Honoré Bouvet), para. 166; c. 1440-1460

(31)   hasta agora no   se   ha guardado la merced que vuestra Alteza   hizo.[27]
       until now not Pass$_{se}$ has guarded the mercy that   your highness made
       "Up until now the mercy that your Highness commanded has not been
       protected."

Conclusion:

In MidS, *se* merges as a DP argument but moves as a head; i.e., *se* is at stage (b) in the reflexive object cycle.

2.3.1.3 Stage (c) – Early Modern and Modern Spanish (1600-present)

- MS *se* exhibits the properties of an inflectional affix. Inflectional morphology does not change the category of the base or form new words (Fábregas & Scalise 2012).

(32)   Juan com-e mucho.   (33)   Se-come mucho aquí.
       John eat-3S a-lot   Imp$_{se}$-eat   a-lot   here
       "John eats a lot."   "People eat a lot here."

- Inflectional morphology adheres to strict ordering with other morphemes.

(34)a. Tú   habl -a -ba -s   (35)a. Se   -pre -dice el futuro.
       you speak-TV-Asp-2S   Pass$_{se}$-pre-says the future
       "You were speaking."   "The future is predicted."

   b.*Tú habl-ba-s-a   b. *Pre-se-dice el futuro.

- No lexical material may intervene between affix and base; i.e., no interpolation.

(36) Juan no pre-dice el futuro.   (37) *Juan pre-no-dice el futuro.
      Juan not pre-dicts the future   Juan pre-not-dicts the future

(38) Juan no se-   lava.   (39) *Juan se-   no lava.
      Juan not Refl$_{se}$ washes   Juan Refl$_{se}$ not washes

- *Se* interacts morphophonologically with inflectional material (Halle & Harris 2005).

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[27] Anonymous, *Cortes de Madrid*, para. 19; 1551

	Normative		Alternative
(40)	Sírvan-se.	(41)	Sírvan-se-n.
	serve-Refl$_{se}$		serve-Refl$_{se}$-n
	"Serve yourselves!"		"Serve yourselves!"

- Inflectional morphemes move with their base (Franco 1993).

(42)	Juan lav-a su coche.	(43)	¿Con qué frecuencia lav-a Juan su coche?
	Juan wash-es his car		with what frecuency wash-es Juan his car
	"Juan washes his car."		"How often does Juan wash his car?"

(44)	Juan nunca se ducha.	(45)	¿Con qué frecuencia se ducha Juan?
	Juan never Refl$_{se}$ showers		with what frecuency Refl$_{se}$ showers Juan
	"Juan never showers."		"How often does Juan shower?

Conclusion:

- In MS, *se* patterns like inflectional morphology, the expected outcome grammaticalization as morphology[28]. MS is at stage (c) in the reflexive object cycle.

2.3.2 Doubling of *se* diachronically

Predictions:
- Doubling only becomes available when *se* is no longer an argument. Thus, it is not expected at stage (a); i.e., Latin and Old Spanish.
    - o At stage (b), an additional coreferential XP is not allowed because *se* merges as the internal argument in complement position and then moves as a D head.
    - o As *se* loses features and is reanalyzed as a functional head doubling becomes possible. At stage (c), doubling should be allowed with little to no restrictions.

2.3.2.1 Doubling starts in Middle Spanish

- Doubling with *se* starts to occur regularly in MidS (46), but for some speakers *se* continues to be in complementary distribution with *a sí mismo* (47).

(46)	pues a sí mismo se condena quien al que yerra perdona.[29]
	since DOM self very Refl$_{se}$ condemns who DOM-the that errs pardons
	"For he condemns himself, he who pardons the one that errs."

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[28] *Se* is also undergoing paradigmatization, another stage of grammaticalization, in some varieties of Spanish.
[29] Diego de San Pedro, *Cárcel de Amor*, para. 6; 1482-1492

(47)   el que   a   sí mismo aborrece, él se   juzga a mal.[30]
       he who DOM self very   abhors   he Refl$_{se}$ judges to evil
       "He who abhors himself, he judges himself to be evil."

- Table 2, based on a CORDE search, summarizes the increase in frequency of doubling of *se* with *a sí mismo*[31].

Period / Century		Tokens	Percentage
Old	1200-1300	53/3	5.6%
Spanish	1300-1400	47/3	6.3%
Middle	1400-1500	186/21	12%
Spanish	1500-1600	541/253	46.8%

Table 2. Clitic doubling with *se* by century.

2.3.2.2 Patterns of Refl$_{se}$ doubling in Modern Spanish

- Early Modern Spanish: by the seventeenth century, doubling with *a sí mismo* increases to 75.4%.

(48)   el que   se aborreciere a   sí mismo...este tal segura tiene la vida.[32]
       he who Refl$_{se}$ abhors   DOM self very   this so secure   has the life
       "He who abhors himself...this one hold his life secure."

(49)   él   a   sí mismo se   admire.[33]
       he DOM self very   Refl$_{se}$ admires
       "He himself admires."

- However, the doubling of *a sí mismo* by *se* was not obligatory for all speakers.

(50)   El que atiende   a   sí mismo por Dios, hace el   todo.[34]
       he who attends DOM self very   for God does the everything
       "He who attends to himself for the sake of God, accomplishes everything."

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[30] Fray Diego de Valencia, *Sobre la predestinación y sobre la Trinidad y la Encarnación*, para. 22 (1486-1487)

[31] CORDE search conducted on November 19, 2015 at 3:40 p.m. Variant orthography was accounted for. In Table 2, the number on the left is the total amount of tokens of *se*; the number on the right is the amount of those tokens that were doubled.

[32] San Juan Bautista de la Concepción, *Pláticas a los religiosos*, para. 3; 1603-1607

[33] Sor Juana Inés de la Cruz, *Poesía (Lírica personal)*, para. 353; 1666-1695

[34] Miguel de Molinos, *Guía espiritual*, para. 369; 1675

- Present-day Spanish: Refl$_{se}$ can be optionally doubled by *a sí (mismo)*, or a prepositional phrase with a pronominal complement, in which case a bound reading is induced (Babcock 1970, Torrego 1995). Refl$_{se}$ is obligatory.
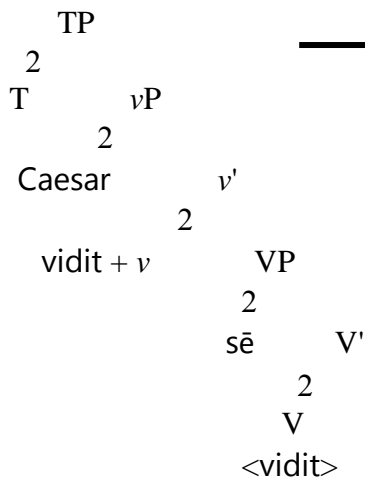
(51) Juan$_i$ *(se$_i$)   lava   (*pro$_i$* / a   sí /   a   sí mismo / a   él).
      John Refl$_{se}$ washes him DOM self DOM self very   DOM he
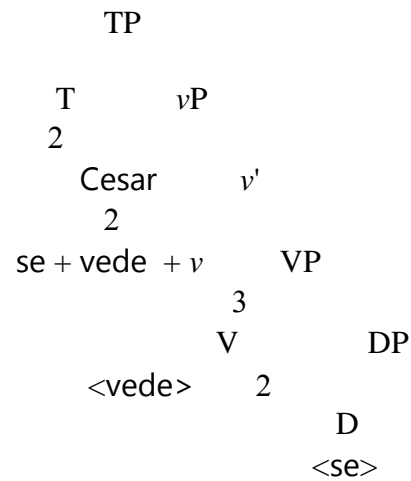   "John washes himself."

Conclusion:
- *Se* is obligatory in MS. Reanalysis from D head to Voice head is complete in MS.
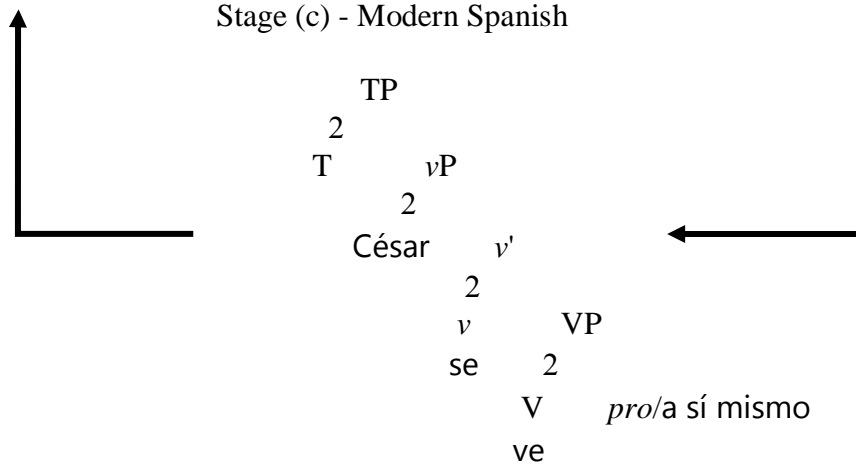
2.4 *Summary of the Reflexive Object Cycle*

(52) Stage (a) - Latin/Old Spanish   Stage (b) - Middle Spanish

Stage (c) - Modern Spanish

3. The Subject Agreement Cycle

3.1 *Background*

- Subject agreement affixes are grammaticalized from subject pronouns (Givón 1976, Fuß 2005, Van Gelderen 2011).[35]
    - Examples of subject agreement inflection derived from subject pronouns: Basque (Tauli 1958), Bantu languages (Givón 1976), Pama-Nyungan (Hale 1973), Iroquoian (Mithun 1991), Nahuatl (Haugen 2004).

Three stages:

Stage (a): the pronoun is a DP merged in Spec,*v* and moved to Spec,T to contribute interpretable φ-features. The DP pronoun can be freely separated from the verb via shifting or scrambling.

Stage (b): the pronoun/clitic is reanalyzed as a D-head and feature loss begins. No additional coreferential nominal allowed; i.e., no doubling.

Stage (c): the clitic is reanalyzed as uninterpretable φ-features on T, triggering another element to merge. An additional coreferential can merge; i.e., doubling allowed.

3.2 *The SAC from Latin to Old French to Modern French[36]*

- Latin subject agreement affixes undergo morphophonological attrition. Subject clitics are undergoing grammaticalization as prefixed subject agreement morphemes. In Modern Colloquial French (MCF) this cycle is nearly complete (Lambrecht 1981, Van Gelderen 2011, Bahtchevanova & Van Gelderen 2016).

3.2.1 Morphological developments

- No consensus on when distinct endings cease to be realized phonetically.
    - Foulet (1936) – starts before the 13th century
    - Nyrop (1904), Revol (2005) – starts during the 13th century
    - Franzen (1939), Herman (1954) – happens sometimes after the 13th century
    - Wartburg (1963), Harris (1978) – happens between the 13th and the end of the 16th centuries.

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[35] Fuß (2005:3) gives an extensive list of typologically distinct languages that have developed agreement affixes from full pronouns.
[36] Old French (1000-1300), Middle French (1300-1500), Modern French (1500 to present). For the SAC in Spanish see Appendix 2.

(53)   **Latin**   **Old French**   **Modern French**[37]
        PORTŌ   port – [pɔrt]   porte – [pɔrt]
        PORTĀS   portes – [pɔrtəs]   portes – [pɔrt]
        PORTĂT   porte – [pɔrtə]   porte – [pɔrt]
        PORTĀMUS   portons – [pɔrtɔnz]   portons – [pɔrtɔ̃]
        PORTĀTIS   portez – [pɔrtet͡s]   portez – [pɔrte]
        PORTĂNT   portent – [pɔrtənt]   portent – [pɔrt]

3.2.2 Distributional developments[38]

- In Old French, the subject pronouns were independent DPs that were used for emphasis and could be separated from the verb by other DPs; i.e., interpolation.[39]

(54)   Si con   tu meismes le preves.[40]   (55)   Se je meïsme ne   li   di.[41]
       if when you self   it prove   if I self   not him tell
       'If you prove it yourself.'   'If I don't tell him myself.'

- Separation of the subject clitic from the verb is no longer possible in MCF.

(56)   *si tu même le prouves   (57)   *si je même ne lui dis

- In OF, subject pronouns could be coordinated and modified. Subject clitics in MCF cannot be modified or coordinated

(58)   …que je et vos l'avons perdu.[42]   (59)   Je qui ensi parole à toi.[43]
         that I and you him-have lost   I who thus speak to you
         'That you and I have lost him.'   'I who thus speak to you.'

(60)   *je et tu   (61)   *Je qui parle à toi.

- In OF, subject pronouns could be elided; in MCF they must be repeated.

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[37] Adapted from Alkire & Rosen (2010)
[38] Data in this section taken from Kaiser (1992) and van Gelderen (2011, 2016). We avoid discussion of third-person subject clitics since they are lagging behind in the cycle.
[39] Similar data can be found in Gardner & Greene (1958). Adams (1987:41) also claims that in OF pronouns were "full pronouns, not clitics."
[40] Guillaume de Lorris, *Roman de la Rose*, c. 1230
[41] Chréten de Troyes, *Cligès*, c. 1176
[42] Anonymous, *La mort le roi Artu*, from the *Lancelot-Grail*, 36,30; 13th century
[43] Anonymous, *Narcisus*:473; 12th century

(62) Mais je doi plorer et dol   faire.[44]   (63) Mais je dois pleurer et *(je) dois le faire.
     but   I must cry and must-it do   but I must cry   and I must it do
     'But I must cry and I must do it.'   'But I must cry and I must do it.'

- Doubling

(64) euh moi je trouve ce qui en souffre le plus...   (65) moi je suis un bloggeur
      uh me I find that who of-it suffers the most   me I am a blogger
     'I find that the one who suffers most...'   'I am a blogger.'

3.2.3 Loss of null subjects[45]

- Adams (1987:42) – loss of *pro* in Late Middle French; i.e., late 1400s.

- Null subjects: primarily in matrix clauses and V2 contexts; in embedded clauses with a coreferential argument in the matrix clause, the subject tends to be overt.

(66)   si firent *pro* grant joie la nuit.[46]
        thus made they great joy the night
        'Thus they made great joy that night.'

(67) Lors s'acorderent *pro*$_i$ que il$_i$ diroient que il$_i$ l'avoient baillié par le
     then SE-agreed   they that they would-say that they him-had held by the
     commandement Nichodemus.[47]
        command   Nicodemus
     'Then they agreed that they would say that they had held him by the command of Nicodemus.'

- Adams' (1987): in OF *pro* is licensed by Infl, but only when "canonically" governed; i.e., government to the right in a head-first language. For this to happen in OF, the verb must move up so that it governs Spec,T.
   o Loss of rich inflection is one factor in the loss of null subjects; the other is loss of V2 which mean the verb did not always move up to govern Spec,T.[48]

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[44] Anonymous, *Aucassin et Nicolette*, XXIV, 42; 12th century
[45] Data in this section adapted from Adams (1987), Roberts (2014)
[46] Robert de Clari, *La Conquête de Constantinople*; 13th century
[47] Chrétien de Troyes, *Le Roman du Graal*, 25-6; 1135-1190
[48] Roberts (2014) takes a similar approach to Adams (1987), but claims there are different ways to lose *pro* in null subject languages like French and Brazilian Portuguese.

<u>Proposal</u>: the ability to merge *pro* in Spec,Voice is due to the grammaticalization of subject pronouns as subject agreement morphemes; i.e., the SAC.[49]

3.3 *A consequence: null subjects as a result of the SAC*

- Previous claims:
  - Klausenburger (2000) – the *pro*-drop status of OF is a result of the low-level of grammaticalization of subject pronouns at that stage.
  - Van Gelderen (2011) – "*pro*-drop is connected to the stages of the cycle" but is not the sole factor in determining where a language is at in the cycle.

- Analyses of null subjects:
  - Rizzi (1986): two conditions on *pro*, licensing and identification.
    - the licensing head can vary crosslinguistically; i.e., Infl, V, P.
    - feature identification takes place via binding
  - Roberts (2010): the subject is deleted since it shares a subset of features with T. These features are only on T due to the SAC.
  - Holmberg (2005): consistent null subject languages have a D-feature in T.

<u>Extension</u>: In a language where the SAC is complete, the pronoun has been reanalyzed as features on the licensing head T. Identification is then a matter of Merge and feature-checking between *pro* and T.[50]

4. Cyclic interaction

4.1 *Background[51]*

- Modern Colloquial French is at stage (c) of the Subject Agreement cycle (v. Section 3.2 above); subject clitics serve as agreement that license *pro*.

- Bahtchevanova & Van Gelderen (2016): French object clitics (potential participants in the OAC) interact with subject clitics (proven participants in the SAC) because they intervene between agreement affixes (subject clitics) and the verb[52].

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[49] Similar claims have been made by Klausenburger (2000), Fuß (2005), and van Gelderen (2011).
[50] Alternatively, T being "pronominal" (having a D-feature) is a result of the SAC. Pronouns are DPs that are reanalyzed as a D-feature on T.
[51] Some data in this section adapted from Bahtchevanova & van Gelderen (2016).
[52] Bahtchevanova & van Gelderen (2016) also consider the adverbial clitics *y* and en as part of the OAC, but for simplicity sake we focus here on the direct object clitics.

(68)   subject clitic + object clitic + verb →   Je le mange.
                                                      'I eat it.'

o Thus, two cycles are targeting structurally adjacent elements, which leads to
   cyclic interaction. The OAC can be affected in three ways:

   Change #1: reanalysis of preverbal object pronouns to being postverbal; i.e.,
   replacement of the clitic with a full postverbal DP or PP.

   Change #2: object pronouns reanalyzed as agreement; i.e., the expected
   outcome of the OAC.

   Change #3: object pronoun is lost completely; i.e., intransitivization (see
   references in Batchevanova & van Gelderen 2016:126)

o The consequences above could lead to different results: acceleration of the OAC
   to stage (b) or the skipping of stages (b) and (c) and jumping to stage (d).

o Some phonological changes support the occurrence of Change #2, but the
   infrequency of distinct prosody of direct object doubling contradicts this.

(69)   Celui-là, je l'ai   pas vu.
       that-there I it-have not seen
       'I haven't seen that one.'

o B & vG's data from the Orléans Corpus show that Change #1 is taking place:

(70)   [La   langue   de Bretagne]$_i$ je ne la$_i$ comprends pas.
        the language of   Brittany   I not it understand not
       'I don't understand the language of Brittany.'

(71)   Le gouvernement   aura   compris   ça.
       the government will-have understood that
       'The government will have understood it.'

Conclusion: Different types of interactions between cycles can occur when they target
structurally adjacent elements.

4.2 *Interaction between the SAC and the ROC in Spanish*

Proposal: In order to develop Pass$_{se}$ you need two elements: 1) the SAC gives you *pro*,
2) the ROC gives you *se* as a Voice head, not occupying Spec,Voice where *pro* merges.

(72)   Pass$_{se}$ → [$_{VoiceP}$ *pro* Voice$_{se}$ [$_{VP}$ DP]]

- In a sense, the two cycles feed each other, resulting in passive *se*. Since the two cycles target *se* and *pro*, two elements that are structurally adjacent, this is similar to the interaction studied by Bahtchevanova & van Gelderen (2016).

- Since Old Spanish was a null subject language and se was reanalyzed as a head, it is not surprising to find Pass$_{se}$ during this period.

4.3 *Interaction between the SAC and the ROC in French*[53]

Prediction: If a language has reached the stage of the ROC where the reflexive is reanalyzed as a Voice head and it has reached the stage of the SAC where subject clitics are agreement that license *pro* in Spec,Voice, Pass$_{se}$ may develop.

4.3.1 French as a case study

- French developed Pass$_{se}$ at a time when it still had null subjects. Pass$_{se}$ in Modern French is a historical remnant.

Previous studies:

- Nyrop (1899:204) – Pass$_{se}$ occurs in the 13th century and becomes generalized during the Renaissance (after 1500).
- Togeby (1965) dates the appearance of Pass$_{se}$ to the late medieval period
- Moignet (1973) considers it fairly well documented in OF.
- Jensen (1990:278) – Pass$_{se}$ "almost totally lacking in Old French"
- Thomasett & Ueltschi (2007) - Pass$_{se}$ exists in the oldest texts
- Wolfsgruber's (2016) - Pass$_{se}$ is documented in OF but only sparsely.

(73)   or   se   cante.[54]   (74)   Car amors ne se puet celer.[55]
        now Pass$_{se}$ sings   for love not Pass$_{se}$ can hide
        'Now it is sung.'   'For love cannot be hidden.'

---

[53] Some data in this section adapted from Nyrop (1899), Cennamo (1993), and Wolfsgruber (2016).
[54] Anonymous, Aucassin et Nicolete; 12/13th century. This is the heading of a musical notation; it occurs several times in the manuscript; instructions to the reader.

[55] Béroul, *Tristan*; 12th century Norman

(75) par qui   l'evesque se   fera.[56]
      by whom the-bishop Pass$_{se}$ will-make
      'By whom the bishop will be appointed.'

(76) ne faison   rien   qui soit ou Dieu ne   se   nomme.[57]
      not we-do nothing that be where God not Pass$_{se}$ names
      'Let us not do anything that may be where God is not named.'

(77) La chose se   deliverroit par le   dit   Thomas.[58]
      the thing Pass$_{se}$ delivered   by the called Thomas
      'The thing will be delivered by the one called Thomas.'

- Status of *se*: according to some authors, interpolation does not occur in OF (Ramsden 1963, Batllori et al 1995), except subject pronouns. We find no evidence of interpolation of *se*, suggesting it was already a head in OF.

Conclusion: OF had null subjects and *se* was a head rather than a full DP. These are the two elements needs to from Pass$_{se}$. Thus, our prediction holds.

4.3.2 Crosslinguistic observations

- Classical Latin: had *pro*; *se* was a full DP → had Refl$_{se}$ and AntiC$_{se}$; no Pass$_{se}$.
    o Verbal affix *–r* was used for passive and impersonal (see Appendix 1)

(78)   [$_{VoiceP}$ *pro* Voice [$_{VP}$ *sē*]]   (Latin reflexive)

- German: has expletive *pro* but lacks referential *pro* (Roberts & Holmberg 2010);
    o Free word order status, presence of abstract case and appearance of the auxiliary HAVE show that *sich* is a full, independent DP (Schäfer 2008, Alexiadou et al 2015)
    o has reflexive and anticausative *sich*; lacks a passive *sich*.

(79)   [$_{VoiceP}$ *sich* Voice [$_{VP}$ DP]]   (German anticausative)

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[56] Gautier de Coincy, *Miracles de Nostre-Dame*; early 13th century
[57] Anonymous, *La Farce de Maître Pathelin*; 1457
[58] *Chartes du Fores*, cited in Cennamo (1993:79) from Stefanini (1962:640).

- Swedish and Norwegian:

  - Two reflexive elements - an independent DP (i.e. *seg* and *sig* respectively) and an affixal form derived historically from a reflexive (i.e. *-s*) (Geniušienė 1987)
  - *Seg*/*sig* occur with 'true' reflexives and anticausatives, but only *–s* occurs with passives (Geniušienė 1987).
  - The independent DP cannot appear in passives because there is no empty position for *pro* to merge. In contrast, the affixal forms do not occupy a syntactic position so remnant *pro* might merge, similar to French.

5. Conclusion

- The structure of Pass$_{se}$ crosslinguistically → [$_{VoiceP}$ *pro* Voice$_{se}$ [$_{VP}$ DP]]

- Two linguistic cycles conspire to yield Pass$_{se}$:
  - The Reflexive Object Cycle turns full DP reflexive into a valency marking Voice head.
  - The Subject Agreement Cycle turns full DP subject pronouns into phi-features on T, thus licensing *pro*.

(80) Reflexive Constructions:

The types of reflexive constructions a language has depends on whether it has grammaticalized subject pronouns as agreement (whether it has *pro*) and whether it has grammaticalized the reflexive pronoun as verbal inflection.

- This prediction holds for Latin, Spanish, and French and also extends to non-Romance languages like German.

A1. *The ROC in Latin*

- Latin had a multifunctional *-r* suffix parallel to MS *se*; i.e., it could have a reflexive (81), anticausative (82), passive (83), or impersonal (84) reading.

(81) Excepit Seleucus fabulae partem et 'ego' inquit 'non cotidie **lavor**.'[59]
took-hold Seleucus conversation part and I said not daily wash
"Seleucus took up part of the conversation and 'I,' he said, 'do not wash myself daily."

---

[59] Petronius, *Satyricon*, 42.2.1; 66 CE

(82) Omnis liquor vapore **solvitur** ac frigoribus magnis conficitur.[60]
      all   liquid vapor dissolve and   great   cold   congeal
      "All the liquid is thinned by the heat and congealed by great cold."

(83) **Mittitur** ad eos C. Arpinius   eques   Romanus.[61]
      sent   to them C. Arpinius cavalryman   Roman
      "The Roman cavalryman, C. Arpinius, was sent to them."

(84) **Vivitur** ex   rapto: non hospes ab hospite tutus, non socer   a genero.[62]
      lives   from plunder not guest from host   safe nor father from child
      "One lived off plunder: a guest was not safe from the host, nor a father from his
      child."

- Latin also had a reflexive pronoun *sē*, the ancestor of MS *se*, which could occur in
  reflexive (85) and anticausative constructions (86)[63].

(85) similī   tālem   **sē** vidit in aurō.[64]   (86) dum calor   **sē** frangat.[65]
     likewise   such   Refl_se sees in gold   while heat AntiC_se breaks
     "Likewise he sees himself in the gold."   "... while the heat breaks."

- Latin *se* displays pronominal (DP) distribution: it can be coordinated, modified, and
  separated from the verb/focused, all of which is not acceptable in Modern Spanish.

(87)a. mē et   **sē** hīsce impedīvit nuptiīs![66]   Latin
       me and Refl_se this shackled marriage
       "He shackled me and himself in this marriage!"

   b. *Me y   se   aprisionó en este matrimonio.   Modern Spanish
        me and himself imprisoned in this   marriage

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[60] Columella, *De re rustica*, 1.6.18.7; 70 CE
[61] Caesar, *De bello gallico*, 5.27.1.1; 58-49 BCE
[62] Ovid, *Metamorphoses*, 1.144; 8 CE
[63] There is debate in the literature as to whether there was a passive *se* in Latin; v. Muller (1924),
Kärde (1943), Monge (1954), Cennamo (1999), Adams (2013). There is no evidence of an impersonal
se. See Green (1991) for an analysis (among many others) of how the *-r* form is lost and competition
with *se*.
[64] Statius, *Achilleid*, 1.865; 94-96 CE
[65] Cicero, *De Oratore* 1.265; 55 BCE
[66] Terence, *Phormio*, 2.4; 161 BCE

(88)a. **sē**   ipse   sine mūnītiōne dēfenderet.[67]   Latin
       Refl$_{se}$ very.M.S without fortification   defended
       "He defended his very self without fortification."

   b. *se   mismo defendió   sin municiones.   Modern Spanish
       Refl$_{se}$ veryself defended without fortification

(89)   apud Platonem Socrates$_i$ in caelum effert laudibus Protagoram Hippiam…
      with   Plato   Socrates in heaven brings praises Protagoras Hippias
      ceteros, **sē$_i$** autem omnium rerum inscium **fingit**   et rudem.[68]
      others Refl$_{se}$ but   all   things ignorant represents and coarse
      "Along with Plato, Socrates praises to the heavens Protagoras, Hippias, and
      others, but HIMSELF he represents as coarse and ignorant of all things."

(90)a. *Juan   se no lava regularmente.
       John Refl$_{se}$ not washes regularly

   b. *Juan$_i$ alaba   a   sus amigos pero SE$_i$ considera ignorante.
       John praises DOM his friends   but Refl$_{se}$ considers ignorant

Conclusion:
Latin *se* was at stage (a) in the reflexive object cycle. As a full DP it could be separated from the verb with few constraints. It merged as the internal argument and could undergo subsequent XP movement.

A2. *The SAC from Proto-Indo-European to Spanish*

- Spanish subject affixes inherited from Latin. Latin affixes were grammaticalized from full pronouns in Proto-Indo-European (Bopp 1862, Brugmann 1888, Schmalstieg 1980, Shields 1992).

- Spanish is currently at stage (c) in the SAC: since
    o subject agreement on the verb and the subject pronouns are full DPs; i.e., they can be coordinated (91), modified and be separated from the verb via XP movement (92). Crucially, the affix can be doubled by an overt pronoun or *pro* (93); i.e., renewal.

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[67] Caesar, *de Bello Gallico*, 20.5; 58-49 BCE
[68] Cicero, *Brutus*, 292.14; 46 BCE

(91) Tú y yo somos amigos.   (92) Yo mismo no   quiero   ir.
     you and I   are   friends   I myself not want-1.S to-go
     "You and I are friends."   "I myself do not want to go."

(93)   <u>Tú</u> / (<u>*pro*</u>) com-<u>es</u>
     you *pro*   eat-2S
     "You eat."

- Spanish has remained at stage (c) throughout its history, despite minor changes in the subject pronoun paradigm; i.e., the reinforcement of *nos* and *vos* by *otros*.[69]

(94)   Et si te   plaze, vayamos nos, yo e tu, adelant...[70]
     and if you pleases   go   we I and you ahead
     'And if it pleases you, let us go ahead, you and I...'

(95)   que yo mesmo me mate por vuestro amor, señora...[71]
     that I self   me kill for your love lady
     'that I kill myself for your love, my lady...'

- Spanish has also remained *pro*-drop since the earliest texts (MacKenzie & van der Wurff 2012), though some varieties of Caribbean Spanish are starting to show new developments in this regard (Martínez-Sanz 2011, Camacho 2013), particularly those that are losing distinct subject agreement endings (Duarte & Soares da Silva 2016).

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[69] This reinforcement might be considered "preventive" renewal and was likely motivated by homophony displayed by *nos/vos* as subject pronouns and *nos/vos* as object and reflexive pronouns. Thus, reinforcement prevented the SAC. See Penny (2002:138) for an alternative explanation.

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