**More evidence for flexible search conditions on probes: probe relaxation**

**Background:** A common proposal amongst recent work on Agree is that Agree-probes may update their search condition across the course of the derivation. Some have argued that probes become more picky upon successful Agree (e.g. *dynamic interaction*: Deal 2024), while others have argued that Agree becomes less picky upon failed Agree (e.g. *probe impoverishment/reduction*: Béjar 2003, Béjar and Kahnemuyipour 2017). I propose that *probe relaxation*, defined in (1) as a mechanism which allows probes to becoming less picky upon failed Agree, captures a wide range of complex Agree-based hierarchy effects in unrelated languages (Quechua, Enxet Sur, Nivaclé).

(1) *Probe relaxation:*
If a $\varphi$ probe on head H bears an interaction condition X (where X $\neq$ [$\varphi$] and X geometrically entails [$\varphi$]) and first-cycle Agree fails because there is no DP that bears X in the domain of H, the probe relaxes its interaction condition to [$\varphi$] upon reprojection.

**[SPKR]$\rightsquigarrow$[$\varphi$]:** Enxet Sur (Elliott 2021) exhibits 1st person omnivorous agreement (Elliott 2021). 1st persons control agreement regardless of whether they are the subject (2a) or the object (2b).

(2) a. **ek**-tekpog-kek xép
**1SG**-hit-DECL 2SG.M
'I hit you.' (1>2: 1SUBJ)

b. **é**-tekpog-kek xép
**1SG.OBJ**-hit-DECL 2SG.M
'You hit me.' (2>1: 1OBJ)

(3) a. Remigio **ek**-weyhenchás-ak
Remigio **1SG**-give.idea-SCND
'I gave the idea to R..' (1>3: 1.SUBJ)

b. Remigio **é**-weyhenchás-ak
Remigio **1SG.OBJ**-give.idea-SCND
'R. gave me the idea.' (3>1: 1.OBJ)

When there is no 1st person (2>3/3>2/3>3), the subject controls agreement in grammatical gender. Juan controls masculine agreement in (4a) but *semheg* 'dog' controls feminine agreement in (4b) (word order flexible). 2nd persons do not control person agreement, but rather gender agreement.

(4) a. **ap**-tekpog-kek semheg Juan
**M**-hit-DECL dog.F Juan.M
'Juan hit the dog.' (M>F: M)

b. ∅-wetag-wok-m-ek yewa semheg
**F**-see-ARR-TERM-DECL snake.F dog.F
'The dog found a snake [ … ].' (F>F: F)

**Analysis of Enxet:** What is clear is that an analysis must provide two things: i) a picky probe to derive omnivorous 1st person agreement and ii) a flat probe to derive simple subject agreement in the absence of 1st persons. (5) shows the derivation for 1>2/3. Agree fails in the first cycle because the IA does not meet the interaction condition. Therefore, upon reprojection, the probe relaxes to [$\varphi$] and Agrees with the EA. A 2/3>1 configuration (omitted for space) results in satisfaction of the probe on the first cycle. In both cases, only 1st person features are copied, but Vocabulary Insertion is sensitive to the interaction condition on the probe: *ek-* $\leftrightarrow$ [1]$_{[\text{INT:SPKR}]}$ vs. *é-* $\leftrightarrow$ [1]$_{[\text{INT:}\varphi]}$.

(5) *Derivation of 1>2/3 direct:*

a. **Step 1:** [ $_{v\text{P}}$ $v_{[\text{INT:SPKR,SAT:SPKR}]}$ [ $_{\text{VP}}$ V 2/3SG ] ] (failed Agree)

b. **Step 2:** relaxation: [INT:SPKR] $\rightsquigarrow$ [INT:$\varphi$] ‖ **Step 3:** Merge DP$_{[1\text{SG}]}$ in spec,*v*P.

c. **Step 4:** [ $_{v\text{P}}$ 1SG $v_{[\text{INT:}\varphi,\text{SAT:SPKR}]}$ [ $_{\text{VP}}$ V 2/3SG ] ] (probe satisfied by EA)

Enxet Sur also exhibits an intransitive agreement split for 1st persons. Some intransitives take subject agreement (6a), but others take object agreement (6b). I propose that the difference in morphology is the result of the unaccusative/unergative split (see Kroeger (1990) on K. Dusun and Ko (2020) on Crow): unaccusatives involve object agreement, unergatives involve subject agreement.

(6) a. **ek**-paqmet-chek
**1sg**-chat-decl
I spoke (subj. Agr)

b. **e**-sam-chek
**1sg.stat**-bad-decl
I am bad/evil(obj. Agr)

Probe relaxation provides a uniform analysis of both the transitive and intransitive agreement facts: 1st-cycle Agree derives object agreement regardless of whether or not there is a subject (unaccusative/1st person object) and second cycle Agree derives subject agreement regardless of whether or not there is an object (unergative/1st person subject).

**Quechua [ADDR]⇝[$\varphi$]:** Quechua exhibits 2nd person omnivorous agreement (Myler 2017, a.o.): 2nd persons control agreement regardless of whether they are the subject (7a) or the object (7b).

(7) a. kuya-**nki**
love-**2**
'You love him/her.' (2>3: 2nd)

b. kuya-shu-**nki**
love-2INV-**2**
'S/he loves you.'(3>2: 2nd)

However, if there is no 2nd person (e.g. 1>3, 3>1, etc.), the verb agrees with the subject. In 1>3 the 1st person controls agreement (8a) and in 3>1 the 3rd person controls agreement (8b).

(8) a. kuya-**a**
love-**1SUBJ**
'I love him/her.' (1>3: 1st)

b. maqa-ma-rqa-**n**
hit-1INV-PST-**3SUBJ**
'S/he hit me.' (3>1: 3rd)

While in-depth derivations are omitted for space, it is clear that probe relaxation extends straightforwardly to this case as well: the probe Merges with [INT:ADDR] and, if it finds a 2nd person, it Agrees with it. If there is no 2nd person, the probe relaxes to [$\varphi$] and Agrees with the subject. Quechua exhibits two other hierarchy effects (data omitted): inverse marking and a portmanteau in 1>2. I show that, by adopting probe relaxation, all three hierarchy effects follow straightforwardly.

**Nivaclé [PART]→[$\varphi$]:** The final language to explore is Nivaclé which exhibits three agreement patterns all captured uniformly under probe relaxation: i) direct/inverse agreement (1>2>3), ii) a portmanteau form in 1>2, and iii) an unaccusative/unergative agreement split (just like Enxet Sur).

**Outlook and discussion:** Because probe relaxation is not the first proposal of its kind, the question naturally arises: *why* probe relaxation? The Enxet Sur and Nivaclé intransitive splits suggest that at least for these languages probe relaxation is on the right track. This is because probe relaxation allows for a uniform account of both the transitive and intransitive agreement facts: Agree in 1st cycle results in object morphology and Agree with a relaxed probe results in subject morphology. Other analyses require positing null objects in unergatives (or null subjects in unaccusatives) which is stipulative and not empirically motivated. Secondly, probe relaxation obviates the need for dynamic interaction in languages with strictly-descending (1>2>3) inverse marking/inverse agreement (Quechua, Nivaclé, etc.) because in both 3>2 and 2>3, without additional stipulations, probe relaxation derives single Agree with only the 2nd person: the probe Merges with [INT:PART] and in 2>3 relaxes but in 3>2 it does not. Finally, probe relaxation, which is directly inspired by probe impoverishment (Béjar 2003), captures not only the patterns for which probe impoverishment was originally proposed, but also new patterns which the original model cannot capture (those presented here). Typologically, probe relaxation makes an interesting prediction that, assuming the definition above in (1) and a standard feature geometry where [SPKR] and [ADDR] entail [PART] which, in turn, entails [$\varphi$], we should find evidence for three relaxation paths. All paths are attested (presented here) and probe relaxation is also attested in number agreement ([PL]⇝[$\varphi$]). Probe relaxation captures the newly introduced patterns (Quechua, Enxet, Nivaclé), previously analyzed patterns, and much more, making it an important mechanism to adopt in our model of Agree.