

Week 1: general introduction

We typically distinguish two different types of phrasal movement, i.e., A movement, and A-bar movement (leaving aside head movement and more exotic types of phrase movement like sideways movement). The goal of this course is to teach you some things about A-bar movement from the perspective of different languages. The reason why we are doing things this way is because, contrary to what it may appear at first sight, it makes things easier. Certain properties of A-bar movement in English are mysterious if we only look at English, but suddenly become more transparent when we start looking at how they work in Tlingit (and vice versa).

1 What is A-bar movement?

Let's begin by asking first what plain A movement is. The "A" stands for "argumental", so A movement includes things like passivization, subject raising, dative alternations, etc —all things that move a DP to a position where case or a theta role is assigned. The "bar" in A-bar movement is the logician's way of representing negation, so A-bar movement is movement to a position that is not argumental. When people think about A-bar movement, they are typically thinking about wh- fronting, but in reality, A-bar movement is a very general phenomenon. Besides wh- questions, we can find it in (among other places) relative clauses, comparative clauses, topic and focus movement, and some more obscure constructions like *tough*-sentences and *as*-parentheticals.

2 How do we diagnose A-bar movement?

The answer takes us to Chomsky (1977), who pointed out that a number of apparently unrelated constructions share a cluster of non-obvious properties, and could therefore be seen as different manifestations of the same underlying rule —namely, A-bar movement (although he calls this rule *wh- movement*, because wh- questions are the most

prominent example). Originally, Chomsky listed four properties, but we can summarize them to three:

- (1) a. A-bar movement leaves a gap, except in languages with resumptive pronouns.
- b. In *bridge environments*, A-bar movement can go arbitrarily far.
- c. In *island environments*, A-bar movement can only go as far as the island boundary.

We will look at these three in turn, but b and c are by far the most important ones.

2.1 It leaves a gap

This might look like the most obvious property, but it is not always there. In many languages (including certain dialects of German), the base position of A-bar movement is occupied by a resumptive pronoun, rather than a gap.

- (2) *Zurich German (Salzmann 2006)*
s Bild, wo t gsäit häsch, dass de Peter s wett verchauffe.
the picture which you said have that the Peter it wants sell
- (3) *Zurich German (Salzmann 2006)*
de Bueb, wo mer em es Velo versproche händ.
the boy who we him the bike promised have

Under certain circumstances, even Standard German exhibits resumptive pronouns in relative clauses.

- (4) *Standard German (Salzmann 2006)*
der Maler, von dem ich glaube, dass Petra **ihn** mag.

2.2 Bridges and islands

We owe the term *island* to its discoverer, John Ross. In his 1967 dissertation, Ross pointed out that there are two types of rules —namely, those that can relate two positions across a certain class of nodes and those that can't. The nodes in question are what we call *islands*, and the rules that can't relate two positions across an island boundary are what we now call *movement*. So, an island is a piece of syntax you cannot move out of (and, conversely, a *bridge environment* is a piece of syntax that you can move out of). Here are some common island types.

(5) *Relative clauses (RC)*

*? [Which man]_i did Jack meet [_{RC} the woman who kissed *t_i*]?

(6) *Adverbial Clauses (AdvC)*

*? [Which man]_i did Jack get angry [_{RC} { after/before/because/although/... } Sally kissed *t_i*]?

(7) *Complex Noun Phrases (CNP)*

*? [Which man]_i did Jack [_{CNP} hear the { rumor/story/lie/... } that Sally kissed *t_i*]?

(8) *Embedded wh- questions (WH)*

- a. *? [Which man]_i did Jack wonder [_{WH} whether Sally kissed *t_i*]?
- b. *? [Which man]_i did Jack wonder [_{WH} who kissed *t_i*]?

(9) *Factive clauses (FC)*

*? [Which man]_i did Jack {regret/complain} [_{FC} that Sally kissed *t_i*]?

(10) *Coordinate structures (&P)*

*? [Which man]_i did [_{&P} Sally kissed Jack and Betty date *t_i*]?

Note that the relevant configuration is the following, where the trace of movement is *inside* the island and the moved phrase is *outside*.

(11) * wh_i ... [*island* ... *t_i* ...]

This is important. The mere presence of an island environment doesn't automatically mean that the sentence is ungrammatical. Ungrammaticality obtains only when there is movement from inside to outside the island. Specifically, the following configurations are all grammatical.

(12) *Movement outside an island*

- a. ✓ wh_i ... *t_i* ... [*island* ...]
- b. [Which man]_i did Sally kiss *t_i* [_{AdvC} after Matt arrived?]

(13) *Movement across a whole island*

- a. ✓ wh_i ... [*island* ...] ... *t_i*
- b. [Which man]_i did [_{RC} the woman that Betty met] kiss *t_i*?

(14) *Movement inside the island*

- a. ✓ [*island* wh_i ... *t_i*]
- b. Jack wondered [_{WH} [which man]_i Sally had kissed *t_i*]

3 Some A-bar sentence types

Wh- questions

(15) *Long distance extraction in bridge environments*

Which man do you think that Jack said that Sally believes that Betty dated?

(16) *Sensitivity to islands*

- a. ?* Which man did Jack get angry after Sally kissed?
- b. ?* Which man did Jack meet the woman who kissed?
- c. ?* Which man did you hear the rumor that Sally had kissed?

Topic/focus fronting

(17) *Long distance extraction in bridge environments*

This man, you think that Jack said that Sally believes that Betty dated.

- (18) *Sensitivity to islands*
- a. ?* This man, Jack got angry after Sally kissed.
 - b. ?* This man, Jack met the woman who kissed.
 - c. ?* This man, you heard the rumor that Sally had kissed.

Clefts

- (19) *Long distance extraction in bridge environments*
It is Matt that you think that Jack said that Sally believes that Betty dated.
- (20) *Sensitivity to islands*
- a. ?* It is Matt that Jack got angry after Sally kissed.
 - b. ?* It is Matt that Jack met the woman who kissed.
 - c. ?* It is Matt that you heard the rumor that Sally had kissed.

Relative clauses

- (21) *Long distance extraction in bridge environments*
The man that you think that Jack said that Sally believes that Betty dated.
- (22) *Sensitivity to islands*
- a. ?* The man that Jack got angry after Sally kissed.
 - b. ?* The man that Jack met the woman who kissed.
 - c. ?* The man that you heard the rumor that Sally had kissed.

Comparative clauses

- (23) *Long distance extraction in bridge environments*
Sally kissed more men than you think that Jack said that Betty had dated.
- (24) *Sensitivity to islands*
- a. * Sally kissed more men than Jack got angry after Sally dated.
 - b. * Sally kissed more men than Jack met the woman who dated.
 - c. * Sally kissed more men than you heard the rumor that Betty had dated.

Tough-sentences

- (25) *Long distance extraction in bridge environments*
This problem is tough to believe that Jack said that Sally would solve.
- (26) *Sensitivity to islands*
- a. * This problem is tough to believe that Jack got angry after Sally solved.
 - b. * This problem is tough to believe that Jack met the woman who solved.
 - c. * This problem is tough to believe that you heard the rumor that Betty had solved.

As-parentheticals

- (27) *Long distance extraction in bridge environments*
Jack kissed Sally, (just) as Betty said that Matt had.
- (28) *Sensitivity to islands*
- a. * Jack kissed Sally, (just) as Betty got angry after Matt did.
 - b. * Jack kissed Sally, (just) as Betty met another man who had.
 - c. * Jack kissed Sally, (just) as Betty heard the rumor that Matt had.

4 Suggested reading

Chapters 7 of Haegeman and chapters 9-10 of Adger contain good introduction to wh- movement, from which you can extrapolate a lot of things to A-bar movement in general. Richards' chapter is probably the most up-to-date summary.

Adger, David. 2003. *Core syntax*. Oxford: Blackwell.

Haegeman, Liliane. 1994. *Introduction to Government and Binding Theory*. Oxford: Blackwell.

Richards, Norvin. 2011. A-bar dependencies. In Boeckx (ed.) *The Oxford Handbook of Linguistic Minimalism*. Oxford: Oxford University Press.

More advanced stuff: you will possibly need some guidance and/or a strong stomach to make it through the following.

Chomsky, Noam. 1977. On wh- movement. In Culicover, Wasow, and Akmajian (eds.) *Formal syntax*, 71–132. New York: Academic Press

Ross, John. 1967. Constraints on variables in syntax. Doctoral dissertation, MIT