

Some Remarks on Bever (2009)¹

The text at hand re-evaluates the problematic status of the **Extended Projection Principle (EPP)**. The EPP basically states that sentences, presumably in all languages, must have subjects. Note that here Bever does not distinguish between **DPs** and **NPs** in subject position. In (1), he equates “*there*” are three men in the room with “*it*” surprised us that John left. The sentence *“*it*” are three men in the room is clearly ungrammatical; as far as I can see, no attempt of a differentiation of the two categories is made in the text. What appears to be correct is the fact that both “*it*” and “*there*” satisfy the EPP. In (2) of Bever's text, we find that some “troubling facts” (p. 279) have become apparent. Though in (2a-c) some examples would have been advisable;² point (2d) really seems to have something to it – *stipulating something does not entail explaining its consequences*. From this point of view we certainly do have a problem with the EPP.

Bever tries to motivate the EPP by introducing the notion of **Canonical Form Constraint (CFC)**. The idea behind this seems to be this: “Sentences have to conform to the CFC – they must sound like they are sentences of the language to afford the individual child a statistical entrée into acquiring it” (p. 279). Whatever “sound like they are sentences of the language” here means. Knowing which particular sentence sounds like a possible sentence in a given language *presupposes* knowledge (or particular aspects thereof) of the given language. This is, I believe, an instance of **argumentative circularity** – something rather pervasive throughout the text.

The CFC is not a property of the **FL(N)**. It is situated between FL(N) and the acquisition interface. As such, Bever feels it to be legitimate to recruit general learning mechanisms enabling a child to acquire language: “Language acquisition recruits general mechanisms of growth, learning, and behavior in individual children: only those languages that comport with these mechanisms will be learned” (p. 281). Personally, I thought that language learning is always a *special case of learning*. The whole poverty of stimulus arguments revolve around this fact. **Question:** How much part of, how integrated into the FL(N) is the **Language Acquisition Device (LAD)**?³ It is simple: Once you increase the distance between LAD and FL(N) you open the conceptual path to the integration of other “learning” notions such as general “problem solving” (p. 292). A sketch of this is given in Figure (1).

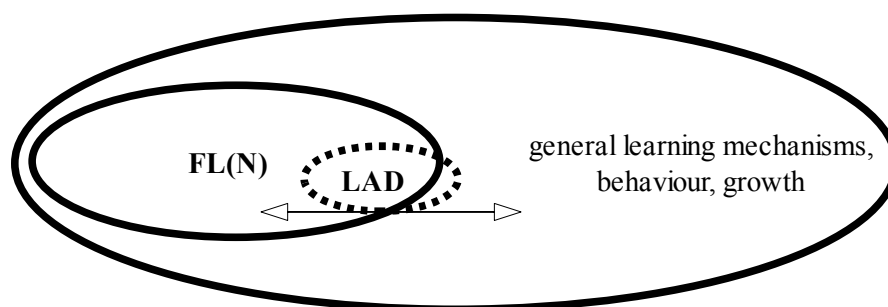


Figure (1)

1 In: PIATELLI-PALMARINI et al. (eds.) (2009): *Of Minds and Language*. Chapter 18, pp. 278-295.

2 Just an aside: (2c) has no clear meaning. Does it mean that the EPP is the statistically dominant form in different languages? This would be an empty statement, since the EPP was postulated to *yield* statistically dominant word-order forms across different languages; I don't know whether word-order can be meant here at all. Furthermore, this does not tell us how languages are to be conceptualized where “*it*” (EPP, word-order, or whatever) does *not* correspond to the statistically dominant form. A point left unconsidered by Bever's learning theory.

3 I know that the LAD terminology might be a bit dated. I just use it here to illuminate the issue of where language learning takes place.

Very generally speaking, as far as I could see, Bever tries to move the LAD towards the outer space of the FL(N). It would be advisable to have a look at the article by Cedric Boeckx (pp. 44-57); particularly with regard to E- and I-language universals, Bever makes use of Boeckx's notions.

Bever then draws on some neurological arguments to underpin his point that learning may depend on differences in computational style (propositional (left hemisphere) vs. associative (right hemisphere) learning). He explicitly mentions **familial handedness phenomena (FLH+/-)**. As far as I can get his point, all of the tested subjects are right-handed, though one group is with left-handed relatives and the other without left-handed ones.

	FLH+ (with left-handed relatives)	FLH- (without left-handed relatives, all relatives right-handed)
right-handed	<p>early language comprehension using individual words, bilateral brain representation of lexical items</p> <p>Since lexical knowledge is presumably acquired via the use of both hemispheres and since this type of acquisition is "less demanding computationally than syntactic structures" (p. 282), the prediction is that lexical processing is more bilateral in this particular group.</p> <p>→ confirmed: lexical tasks are bilateral left hemisphere is dominant in syntactic tasks</p>	<p>greater acquisition focus on syntactic organization</p> <p>→ confirmed: lexical tasks unilateral (left-hemispheric) left hemisphere is dominant in syntactic tasks</p>
left-handed	not tested, at least apparently not mentioned in the text, genetically irrelevant (?)	not tested

Figure (2)

As to the terminology: Acquisition does lead to predictions on later processing. Bever and his colleagues found the given particular acquisition patterns and predict from there adult behavior. I would have liked to see some actual testing going on. Bever relies exclusively on the literature given.

Now, what does all this tell us about the critical period? On p. 284, Bever introduces the case of deaf children. Why deaf? Do they have different kinds of access to syntactic or lexical knowledge?⁴ As far as I can tell syntax is acquired much the same as in hearing children, and lexical reference (whatever that may be) should be established in just the identical way. If so, then what makes this syntactic and lexical access particularly different and interesting in the sense that you could compare it to non-deaf children?⁵ Anyhow, FLH+ deaf children show a younger critical age for the mastery of syntax – this means that they master syntax before FLH- deaf children, right? Then follows a somewhat contradictory sentence: "This follows from the fact that FLH+ people access the lexical structure of language more readily, and access syntactic organization less readily than FLH- people" (p. 284). But if FLH+ subjects access syntactic information less readily, then how can they be faster in mastering syntax than FLH- subjects? Even if we interpret all this as saying that lexical learning facilitates syntactic learning and lexical items grow in number most rapidly between 5 and 10

4 Anyhow, I now know that the AxS model Bever draws on once started out in the 1960s as a model for speech recognition. The upshot seem to be that when we hear speech, we produce or synthesize speech until we match what we find. There is a close link to the motor theory which basically says that synthesizing speech is modelling the apparatus we need to produce it.

I don't know whether the term "mimicry" would be ill-applied here. It definitely carries the flavour. Brain imaging data show that during speech perception, motor areas of the brain become activated (Watkins/Paus 2004). In that sense, deaf children *do* have different access.

5 I could not get the article Ross/Bever (2004) anywhere. In: *Brain and Language*.

years of age, or so, then again this would amount to the fact that syntactic learning is slowed down – the critical age would have to rise. Maybe we could clarify this point.

It is more or less easy to see what all this boils down to: Opening the sometimes rather hermetic language acquisition problem to notions pertaining to individual developmental trajectories. Being a nice approach, the reader is sometimes left with vague phrases. The **P+P** theory of learning language was “far removed from the motivational and daily dynamics of individual children” (p. 285). Whatever that is supposed to mean. *Language learning is just something the child does without motivation – one of the key arguments against behaviourist remnants.* For Bever, the best way to integrate deductive and inductive methods in language acquisition is by using the Analysis by Synthesis (AxS) model. The core seems to be that we understand everything twice: (1) perceptual templates assign/trigger (2) syntactic derivations.⁶ For me, this altogether bears the flavour of “meaning before syntax”. It sometimes appears as if syntax just corrects falsely generated meanings. But then again, meaning may correct flawed syntactic structures (cf. pp. 286-7). To my mind, you would probably have to have the syntax first, before you could speak reasonably of meaning. At least you would have to have *something* first.

Now on to the CFC. It perhaps can be said to give the language learner a **statistical hint** of what the child might have grounds of expecting as a statistically significant utterance. The child then somehow forms an **internal data bank of meaning/form pairs** (roughly templates) from which it could also transcend already heard constructions. Regarding the CFC, a **close link of subject to Agent/Experiencer** is assumed. Table 18.1 is relevant here.

I will just stop here. Further questions could be:

1. Is the aesthetic notion (p. 293) really necessary?
2. Is the interpretation of Peirce's abduction principle sound (p. 293)? After all I can recall, for Chomsky, the abductive principle was *active when actual science-formation was going on*. This science-formation is a conscious process, the child testing acquisition hypothesis does this unconsciously.
3. I always thought that discovery procedures are out (p. 294)? Since Bever grants the derivational component natural units (clause-level computations), a natural question would be: Where did they come from? And: How do they work? The possible statistical generalizations of the primary linguistic data are (almost) infinite. How can you filter *that*?

6 Yet in Harley (2008), we find the statement: “Generally, template models are not considered as plausible accounts in psycholinguistics” (Harley 2008: 267). The argument is that the number of matching templates that would have to be stored would have to be exuberantly large, a template being “an exact description of the sound or the word that is being searched for” (Ibid.).