Restricting Accessibility to MERGE

- A Deterministic Theory of Movement -

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The Minimalist Program, which seeks a "principled account" of all phenomena of human language, has the Strong Minimalist Thesis (SMT) as its core hypothesis (see, among others Chomsky 1995, 2000, 2005, 2007).   The SMT claims that the computational system for human language should be a "perfect system," meeting the interface conditions in a way that satisfies the third factor principles, language-independent principles.   Among the third factor principles are principles of efficient computation, which require that the computational system should be restricted to a minimum.   According to the SMT, therefore, the structure-building operation of the computational system should be simple.   The simplest possible formulation is a set-formation that takes syntactic objects (SOs) X and Y, and forms {X, Y}, which is called Merge (see, among others Chomsky 1995, 2004, 2008, 2013, 2015).   Chomsky (2019a, b, c) and Chomsky, Gallego, and Ott (2019) argue, however, that when we form exocentric constructions like the subject-predicate construction, Merge must be allowed to construct SOs in parallel and bring them together somewhere.   This tacitly presupposes that there is a workspace (WS) in which operations are carried out.   They propose that the right and simplest version of Merge should be on WS, not on particular SO, and reformulate Merge as MERGE as an operation on WS, where WS is taken to be the stage of a derivation at any given point as shown in (1):

(1)   MERGE maps WS = [X, Y] to WS' = [{X, Y}]

Chomsky (2019b, c) also argues that not only should the computational system be restricted to a minimum, but the resources available to the computational system, *i.e.* the set of elements accessible to operations, should also be reduced to a minimum, which is called Resource Restriction (RR).   Chomsky claims that RR includes both minimal search and the Phase Impenetrability Condition (PIC).   He further argues that RR forces operations including

MERGE to be subject to the principle of Determinacy (2), though its exact formulations and consequences are left untouched:

(2) The Principle of Determinacy

If the structural conditions for a rule holds for some workspace, then the

structural change must be unique. (Chomsky 2019a: 275)

This presentation proposes that RR should include only the PIC (but not minimal search) and that the principle of Determinacy should be formulated as a condition on the *input* of MERGE:

(3) a. Restriction Resource (RR) only includes the Phase Impenetrability

Condition (PIC).

b. Determinacy applies at the *input* of MERGE.

I argue that this proposal is theoretically desirable in that we can eliminate a redundancy between minimal search and the PIC regarding accessibility and avoid a look-ahead property. It is also shown that the output-based principle of Determinacy coupled with the PIC gives us a *unified* account of various movement phenomena like the subject condition, *that*-trace effects, no vacuous topicalization, the freezing effects with topics, further raising, no superfluous steps in a derivation, and anti-locality effects, which have been explained by different constraints or principles.

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Agentive vs. non-agentive encoding in causative event descriptions in English and Japanese

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According to Ikegami's (1991) DO- vs. BECOME-language contrastive linguistics, DO-languages like English prefer to focus on and give linguistic prominence to the notion of an agent, whereas BECOME-languages like Japanese tend to suppress this notion. Thus, DO-languages show much more agentive, rather than non-agentive, encoding of events than BECOME-languages.

There are experimental studies on causative event descriptions that tested this hypothesis. For example, Fausey et al. (2010) demonstrated that the difference between the two languages holds for accidental events, though not for intentional events.

The present study examines how English and Japanese speakers encode the caused sub-event of a causative event. We had 12 native English speakers and 15 native Japanese speakers orally describe 43 video clips depicting different types of causal events in their own language, in answer to the question 'What happened?' and including a mention of what happened in the end.

Our results confirm Fausey et al.'s findings (Figure 1). Speakers of both English and Japanese frequently used agentive expressions to describe intentional events (e.g. (1), (2)), but for accidental events, Japanese speakers produced much more non-agentive descriptions than English speakers (e.g. (3), (4)).

(1)　　*A man threw a soccer ball out of the room.* (19: HO4_ball.mp4; ENG #S4)

(2)

Otoko	*no*	*hito*	*ga*	*booru*	*o*	*soto*	*ni*	*nage-te*
man	GEN	person	NOM	ball	ACC	outside	to	throw-CNV

das-imas-ita.
move.out(TR)-POLITE-PST
'The man threw the ball toward the outside, and moved it out.' (19: HO4_ball.mp4; JPN #7)

(3)　　*While doing a report, the newscaster backed up into somebody else and they fell off the boat.*
(30: UM2_overboard; ENG #S5)

(4)

Intabyuu	*o*	*s-ite*	*iru*	*to,*	*baransu*	*o*
interview	ACC	do-CVB	exist	when	balance	ACC

kuzus-ite,	*usiro*	*ni*	*i-ta*	*otoko*	*no*	*hito*	*ni*
destroy-CVB	back	LOC	exist-PST	man	GEN	person	to

butsukar-i,	*otoko*	*no*	*hito*	*wa*	*kawa*	*ni*	*oti-mas-ita.*
bump.into-ADV	man	GEN	person	TOP	river	to	fall-POLITE-PST

'When someone was doing an interview, they lost balance, bumped into a man behind them, and the man fell into the river.' (30: UM2_overboard; JPN #11)

Nevertheless, our participants generally produced more non-agentive descriptions than Fausey et al.'s, presumably because ours responded orally, unlike theirs, who typed their responses, which is likely to have inclined them toward the production of more compact descriptions. Moreover, for accidental events, our participants often used agentivity-lowering expressions such as 'accidentally', 'by accident', 'mistakenly', or 'unintentionally' especially in English (24.0 % out of the agentive descriptions) (e.g. (5)) and *simaw- 'lit.* put away' in Japanese (76.9 % out of the agentive descriptions) (e.g. (6)) in agentive descriptions.

(5)　　*The guy with the microphone loses his balance and **accidentally** knocks the guy in the orange over into the water.* (30: UM2_overboard; ENG #S6)

(6)   *Migi*   *no*   *dansei*   *ga*   *yoroke-te,*   *hidari*   *no*   *dansei*   *o*
          right   GEN   man   NOM   stumble-CVB   left   GEN   man   ACC
          umi   *ni*   *otos-ite*   **sima-tta**.
          sea   to   drop-CVB   put.away-PST
          'The man on the right stumbled, and unfortunately, he dropped the man on the left into the sea.'
          (30: UM2_overboard; JPN #10)

We also found non-agentive expressions were much more frequent in the Japanese data than in the English data as descriptions of events with a natural force causer (e.g. wind, thunder) (e.g. (7), (8)) (Figure 2).

(7)   *Ahh hah. A man was walking against the wind, a very strong wind, and ... as he was walking he lost balance and fell down, and kinda slid away ...* (6: NM2_reporter; ENG #ID6)

(8)   *Dansei*   *ga,*   *tsuyoi*   *kaze*   *no*   *sei*   *de,*   *koron-da.*
          man   NOM   strong   wind   GEN   blame   COP.ADV   fall-PST
          'The man fell because of a strong wind.' (6: NM2_reporter; JPN #12)

This suggests that generally speaking, the two languages differ in the degree of preference for non-agentive expressions for describing low agentivity events. We further discuss low agentivity in the context of the (in)directness of causation, some factors of which we found correlations with the degree of morphosyntactic integration in Kawachi et al. (2018, 2020).
       We also examine data from other languages including Kusapiny (Nilotic; Uganda) and Sidaama (Cushitic; Ethiopia) to test to what extent our results support Ikegami's (1991) typological claim.
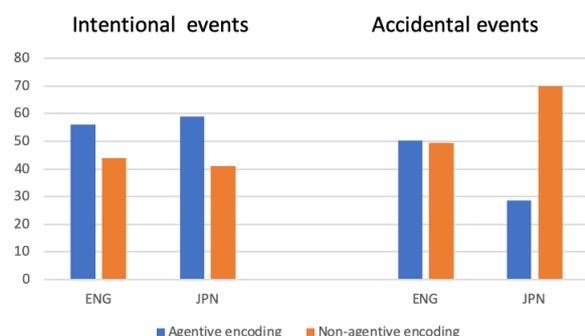

Figure 1: Use of agentive vs. non-agentive encoding constructions to describe intentional and accidents events in English and Japanese
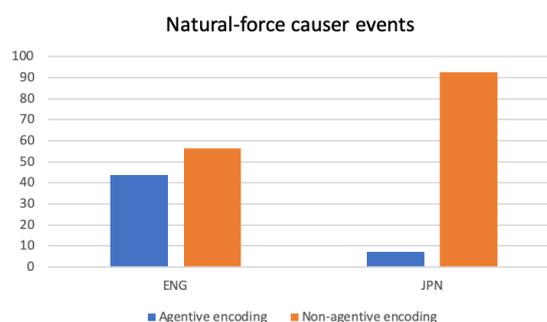

Figure 2: Use of agentive vs. non-agentive encoding constructions to describe natural-force causer events in English and Japanese

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The Evolution of Language and Lexicon: A Comparative Perspective

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A widely held view about language is that it is the pre-eminent system of human beings. However, it is not generally agreed upon what constitutes language and what kind of components are involved in it. An influential view in theoretical linguistics is that the faculty of language, syntax in particular, is part of human's biological endowment that makes language possible and is unique to human beings (Chomsky, 2005). Hauser et al. (2002) make a distinction between the faculty of language in the narrow sense or FLN and the faculty of language in the broad sense or FLB. According to this view, FLB includes a sensory-motor system, a conceptual-intentional system and the computational mechanism of recursion and FLN only includes the last one that is unique to human's faculty of language. However, as Fujita (2016) argues, not only the computational mechanism but also the other two systems are unique to humans and thus there is no reason to assume that the computational mechanism is special and that there is no precursor for it. Since a decisive feature of human language is its ability to represent concepts by combining them, precursors for the components of language should be sought in animal cognition (Fitch, 2019).

The purpose of this talk is twofold. I will first introduce the cognitive biological perspective on the evolution of language, claiming that the faculty of language is not special in that it undergoes evolution as well as other species' faculties but that it is unique to humans in that other species do not use human language. Assuming the Merge only view hypothesis about syntax and lexicon (Fujita, 2017), I will then discuss the proto-lexicon hypothesis that is based on iconicity of language (Kawahara, 2020).

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