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Letting, Making, and the Dynamics of Causation

A brief note

Abstract

Force-dynamic modelling has been developed for grammatical expression of causation (Talmy 2000) and modality (Sweetser 1990, Brandt 2004) in various versions, either as balls-and-brakes or as paths-and-barriers. The present discussion examines a format of representation allowing the modelling of both the basic letting concepts and the basic making concepts. The result is a dynamic schema model that offers possibilities of further elaboration as a model of narrative event sequences, and eventually as a format for interactive and context-anchored cognitive robotics.

Keywords: forces, barriers, causation, modality, negation.

The forces-and-barriers model¹ offers a simple means of representing the relationship holding between a process or a project that we refer to and a circumstance that its realization depends on. In the case of a project, a 'path to realization'² leads through a stance of conditions to be fulfilled and circumstances to take into account. The condition or circumstance is cognized (conceptualized schematically) as a barrier that either does or does not **let** the process or project follow its course towards fulfilment. **Letting** something happen means not stopping it; it means lowering the barrier, or opening a gate in it; **letting** and **not letting** determine an axis of corresponding modal meaning values: the reference entity therefore **can/cannot** pass. This modal result (involving the verb **may**) also includes the deontic set permission/prohibition (of some act) and the epistemic set possibility/impossibility (of some event). This

¹ The standard force-barrier model works as follows. A mobile entity follows a path toward a goal but encounters a barrier in the middle; the resistance of the barrier to the movement of the entity determines what further happens. The barrier can be 'overcome', or it can 'stop' the moving entity, unless it instead follows a path around it. An opening in the barrier can let the entity pass. Making is not represented by this standard model. Talmy 2000, Sweetser 1990. Geeraerts & Cuyckens 2007 have a useful chapter on Force Dynamics.

² Source-path-goal schemas are inherent in all concepts of intention, volition, planning, projects, and conscious acts in general. This is why "LOVE IS A JOURNEY" in Lakoff's (1987) list of "conceptual

axis is one of the semiotic dimensions of the dynamic square for causation presented below.

Letting is passive, whereas **not letting** is active. By contrast, **making** is active, whereas **not making** is passive. This striking phenomenon of inverse correlation of negative and positive values is due to the semiotic correlation between **letting** and **making**, a disposition that current literature on the subject has not considered. In fact, **making** (something happen) is an active, often even agentive concept, though its dynamic representation is far from being clear. By contrast, **not making** (something happen) is passive and equivalent to **letting** (something stay in its present state). The modal meaning values (involving the verb **must**) corresponding to the positive form of **making** include the deontic modal set obligation/facultativity and the epistemic modal set necessity/contingency.

Let us summarize, first using the verb **be** to refer to the states involved:

Making corresponds to *not letting be*; active (= changing), whereas:

Not making corresponds to *letting be*; passive (=leaving unchanged).

There are two more meanings to attend to in the basic group of **letting** effects. They appear if we instead apply the infinitive **do** and allow a paraphrase using the verb **stop** (in the sense of **prevent from**):

Letting do corresponds to **not stopping**; passive (=non-intervention).

Not letting do corresponds to **stopping**; active (=negative intervention).

So we have four meaning values: **(not) letting be**; **(not) letting do**. Two active, two passive. Only the **letting do** forms have been taken into account in standard force-dynamic modeling. Adding the **letting be** forms solves the problem of modeling active **making** through force-dynamics.

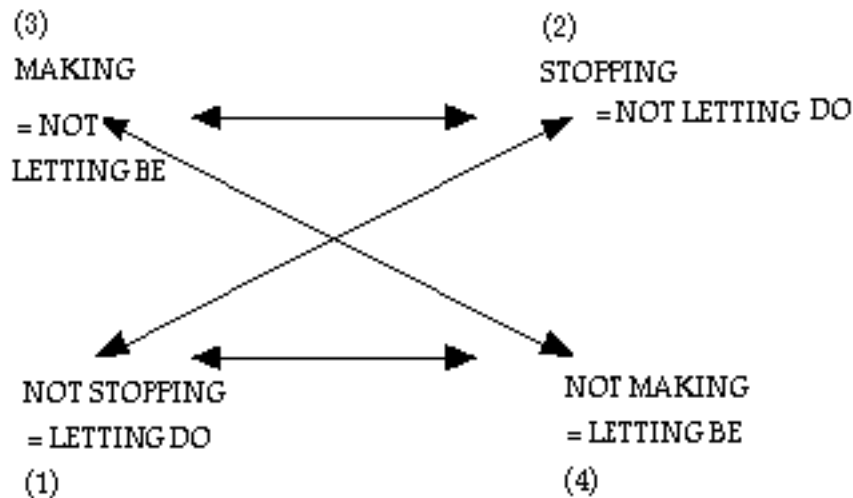
My aim here is to show that these meanings can be represented within the framework of one and the same dynamic schema, accounting directly for their cognitive kinship, apparent in the fact that they share verbs of the **letting** type

metaphors". "Love", here, is a project and is conceptualized by a force-barrier schema; in the metaphor, the source is another project, the "journey".

(Fr. *laisser*, G. *lassen*, da. *lade*, Sp. *dejar*, Port. *deixar*,³ etc.) characterized by their transitive constructions with verb-phrasal objects, by the examples (1) – (4):

- (1) The open cage door let the birds escape.
- (2) Paul never let anybody criticize him.
- (3) Mary let her boyfriend down. She made him unhappy.
- (4) Please let me stay with you. Let things be as they are.

The semiotic square⁴ corresponding to these main forms is the following (fig. 1):



This Greimasean presentation of two intersecting 'contradictory' values (2) – (1=non2) and (3) – (4=non3), forms an axis of 'contraries' (3) – (2) that opposes the strong, efficient, positive, active values, **making vs. stopping**, whereas the axis of 'subcontraries' only distinguishes two weak, concessive, negative, passive values (1) – (4). This semantic square summarizes the schematic structure of the involved dynamic concepts.

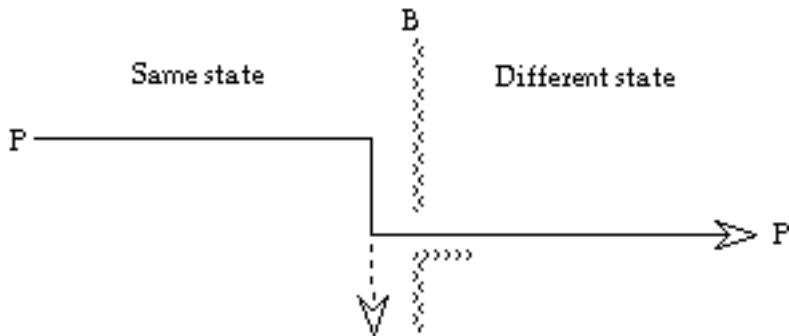
³ Silva (Silva 1999 et passim) is no doubt the scholar most consequently immersed in the study of dynamic semantic aspects of grammar of contemporary literature.

⁴ A semiotic square – *un carré sémiotique* – is a diagram proposed by A.J. Greimas (Greimas and Courtés 1979).

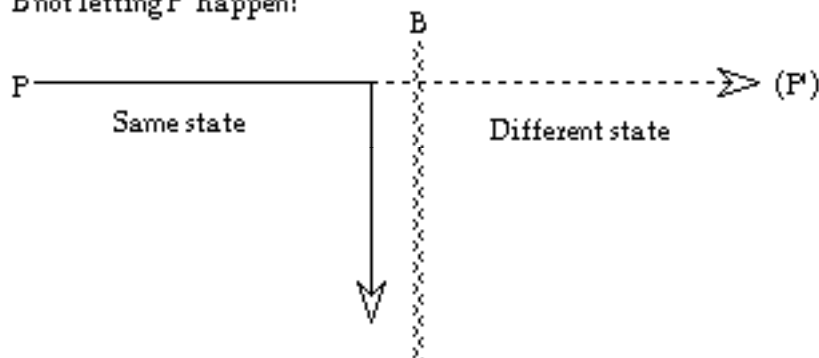
The corresponding, unified schematic representation – a force-barrier diagram – is based on four elements: (a) **P** – a process or a project, or simply an intentional agent driven by a goal and trying to ‘reach’ it; (b) a flexible path in space (or time) from an initial position of **P** and oriented toward the fulfillment, completion, or goal to be reached, namely the continuation of a process or state or the realization of a project; (c) a barrier **B**⁵ showing the particular circumstances affecting the path of **P**; and finally (d) a division of the dynamic space in two qualitative strata with a critical line separating the two parts, one in which movements, acts or events do not change the state of the agent: thus a stratum of Same state, and one representing a Different state.

In ordinary ‘letting’ causation, like (1) and (2), the barrier coincides with the critical line, and the passage through (across, around) this critical barrier leads from Same to Different state. The barrier **B** lets or does not let the process or project **P** happen, or lets the Agent reach his goal (fig. 2a and b):

B letting P happen:

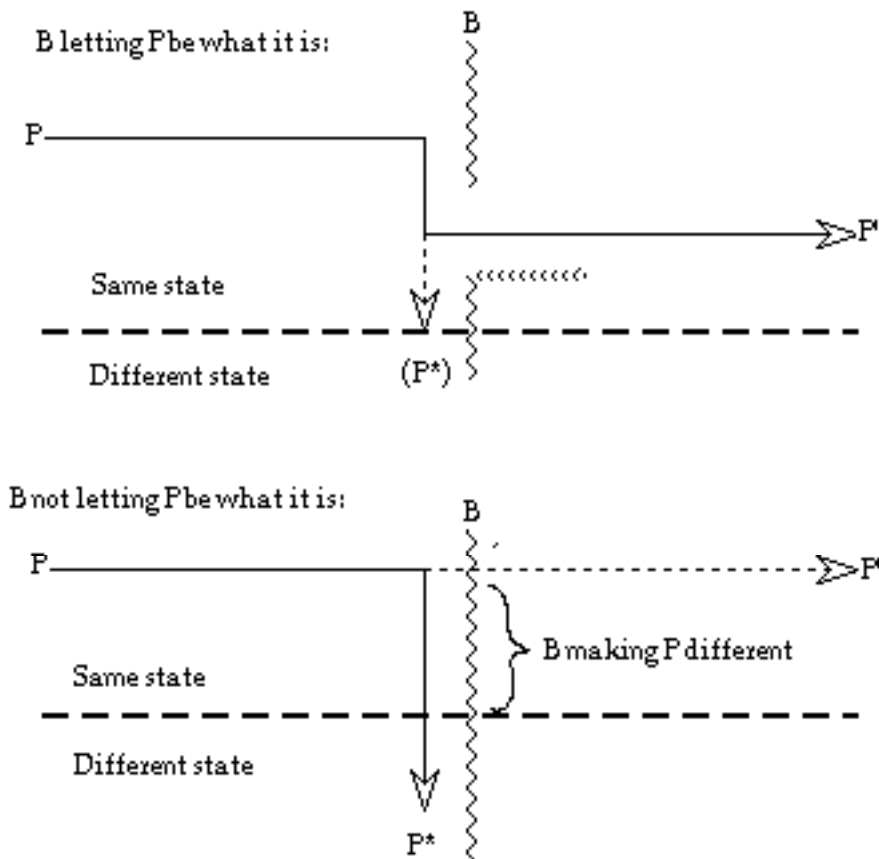


B not letting P happen:



⁵ The barrier can be interpreted as a physical obstacle (a mountain, a wall), a social artefact (traffic lights and lines, locked doors), or a person whose reaction depends on his evaluation of **P**'s goal and with whom

If by contrast the critical qualitative line crosses the barrier instead of running parallel to it, we are able to represent a transition from **P** to **P'** within one and the same state, when an open barrier **lets P** stay the same; a closed barrier can force **P** to go into a qualitative different state, so the actively impeding circumstance will be precisely the one changing or **making P** into a **P***, as in the following diagram (fig. 3a and b):



The 'harassment' of **P** by the barrier **B** corresponds to an active intervention that **makes P** go into a state determined by this dynamic circumstance. **B** changes **P**.

It had formerly been suggested (Brandt 2004) that a **making** schema includes a transforming instance, a multiple input into this instance, and a critical boundary that the process crosses before unfolding a result scenario that shows the change the input undergoes. This result scenario – e. g. a morphological

P will have to negotiate.

change such as: dividing, crushing, splitting, growing, shrinking, or the set of mereological changes: filling, emptying, ordering, disordering, etc. – would characterize **P*** as a figurative revision.

It is plausible that the **letting** and the **making** forms of causation are basic in human cognition. They should therefore be studied and modeled with particular care and accuracy. The present account only contributes to the elucidation of two important aspects of their behavior that have intrigued semantic research: how come they can use the same verb and in very similar constructions? And how can a barrier possibly **make** anything at all?⁶ The verb **let** unfolds with and without **negation**, **be** and **do** a variable dynamic scenario, an iconic representation which may be part of an elementary set of thinking tools of the human (and animal) mind. **Making** is what we **do** when we do **not let** things **be** what they already are.⁷

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References:

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⁶ If the Agent is intentional, that is, is internally driven by a tendency to move toward a goal, then forcing the Agent to take a detour, then this detour can affect the Agent, and the change is **made** by the barrier causing the detour.

⁷ Curiously, Sigmund Freud had the idea that negation can not be imagined (so people had to imagine positively what was conceptualized negatively). Of course, an isolated operator called **not** does not prompt us to imagine anything. But formal logic is not the format of elementary thinking; in life, it is easier to imagine negation as a door (or a factory) that closes – that's negation in the human scale that grounds

Sweetser, E., 1990, From etymology to pragmatics. Cambridge: Cambridge University Press

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abstract thinking. Admittedly, a static image does not open or close anything; modeling has to be kinetic and dynamic in order to account for our mental doings.