

## What Alternates in the Dative Alternation?

Beth Levin  
Stanford University  
(bclevin@stanford.edu)

Malka Rappaport Hovav  
The Hebrew University of Jerusalem  
(mhovav@mssc.huji.ac.il)

### Two approaches to the lexical underpinnings of the dative alternation

- (1) a. Martha gave an apple to Myrna. (*to*-variant)  
b. Martha gave Myrna an apple. (double object variant)

- **THE MONOSEMY APPROACH:** Dative verbs have a single meaning, giving rise to two derivationally-related syntactic structures. The two variants never involve any difference in (truth-conditional) meaning. This analysis tends to be syntactically rather than semantically motivated.

— The *to*-variant is basic (e.g., Baker 1988, Bresnan 1982, den Dikken 1995, Dowty 1978, 1982, Emonds 1972, Hall 1965, Larson 1988, 1990).

— The double object variant is basic (e.g., Aoun & Li 1989, Dryer 1986, Kiparsky 1985).

(There are nonderivational versions of this approach, where one meaning gives rise to two argument expressions (e.g., Butt, Dalrymple & Frank 1997, Van Valin & LaPolla 1997, Wechsler 1995).)

- **THE POLYSEMY APPROACH:** A nonderivational analysis that assumes dative verbs have two distinct meanings, each giving rise to its own realization of arguments (e.g., Arad 1998, Green 1974, Hale & Keyser 1996, Harley 1997, in press, Krifka 1999, 2001, Oehrle 1976, Pinker 1990, Speas 1990). This analysis is motivated by lexical semantic considerations. Verbs that enter into the alternation have core meanings that are compatible with two event schemas. The alternate argument realizations arise because **DISTINCT** arguments satisfy the semantic conditions for mapping to “direct object” in each variant; roughly, distinct arguments are analyzable as “affected arguments” or “causees”.

- (2) a. ‘x cause **y** to have **z**’, giving rise to the double object variant  
b. ‘x cause **z** to be at **y**’, giving rise to the *to*-variant

(There is also a constructional version of this approach (e.g., Goldberg 1995): dative verbs are monosemous, but their core meaning is compatible with two constructions. Since constructions are form-meaning pairs, each verb-syntactic frame pair is associated with a distinct meaning; thus, it is also a two-meaning approach.)

### An overview of our account

We argue for a monosemy approach, sidestepping the issue of syntactic derivation.

**THE STARTING POINT:** English dative verbs are not polysemous and, more generally, the dative alternation does not involve two distinct meanings for each individual dative verb.

We make minimal assumptions about the lexical semantics of the alternating verbs, relying only on what is actually lexicalized by them. We assume that the same lexical semantic structure underlies both variants for a given verb, but don't assume the same lexical semantics for all alternating verbs.

- Core dative verbs (e.g., *give*, *lend*) lexicalize a causation of possession meaning;
- Other verbs (e.g., *send*, *throw*) lexicalize a causative change of location meaning.

SUPPORT FOR THE MONOSEMY APPROACH: Apparently lexical semantic effects which are taken to support the polysemy approach actually arise from Gricean implicatures, heaviness of constituents, and information structure considerations.

THE KEY IDEA: The dative alternation is not about alternate choices for direct object, but about alternate expressions of recipients (i.e., animate goals). Recipients may be realized in two ways, as they are open to two semantic characterizations (cf. Goldsmith 1980):

- a type of possessor
- a type of goal by the Localist Hypothesis (Gruber 1965, Jackendoff 1972).

The availability of two semantic analyses for recipients is universal; therefore, recipients have two possible modes of expression:

- A core grammatical relation dedicated to the expression of possessors:
  - with three-argument verbs in English and some other languages the FIRST OBJECT in the double object construction;
  - in many languages a dative case-marked NP (or equivalent).
- An oblique grammatical relation associated with goals:
  - in many languages a locative or allative case marker or adposition;
  - in English the *to*-phrase in the *to*-variant.

The manifestation of these alternate argument realization possibilities in a given language, including their repercussions for the expression of the theme argument, depends on its morphosyntactic resources: e.g., one instantiation is the English dative alternation.

### Evidence for recipients as goals and as possessors

- Although recipients of dative verbs are open to two semantic characterizations, in general:
  - not all goals are recipients (e.g., purely spatial goals)
  - not all possessors are recipients (e.g., possessors which are sources: *cheat*, *deprive*)

PREDICT AND FIND: *to*-variants lacking double object variant counterparts and vice versa.

\* Purely spatial goals are found in the *to*-variant only. If a dative verb is used to describe a change of location that isn't also a transfer of possession, it is found only in *to*-variant, as the double object variant requires a possessor.

- (3) a. Smith sent a package to London.  
b. \* Smith sent London a package.  
(out unless *London* is metonym for, say, the London office.)

\* Non-recipient possessors of three-argument verbs should be expressed as first objects only. In fact, verbs selecting such possessors are only found in the double object variant.

- (4) a. Smith envied Jones his good fortune.  
\* Smith his good fortune to Jones.  
b. Noone can forgive you that comment.  
\* Noone can forgive that comment to you.

- c. The recession cost my grandfather a raise.  
 \* The recession cost a raise to my grandfather

• Evidence from alternation asymmetries in dative verb idioms. (Data from Green 1974, Harley in press, Machonis 1985, Nunberg, Sag & Wasow 1994, O’Grady 1998, Richards 2001, but reinterpreted.)

TYPE A: *To*-variant idioms that lack a double object variant counterpart

- (5) send x to the showers/\*send the showers x  
 send x to the devil/\*send the devil x  
 take x to the cleaners/\*take the cleaners x  
 push x to the edge/\*push the edge x  
 carry x to extremes/\*carry extremes x  
 take x to heart/\*take heart x  
 bring x to light/\*bring light x

TYPE B: Idioms found in both variants, though double object variant preferred (see below)

- (6) read x the riot act/read the riot act to x  
 lend x an ear/lend an ear to x  
 teach x a lesson/teach a lesson to x  
 show x the ropes/show the ropes to x  
 promise x the moon/promise the moon to x  
 give x the cold shoulder/give the cold shoulder to x  
 give x a wide berth/give a wide berth to x  
 give x the slip/give the slip to x  
 give x the creeps/give the creeps to x

The distribution of variants can be explained if a first object must encode a possessor and the *to*-phrase encodes a goal (whether a spatial goal or recipient).

TYPE A: These idioms involve goals that can’t be interpreted as recipients, and hence can be expressed via the *to*-variant but lack a double object variant counterpart.

TYPE B: These idioms involve recipients, which, as usual, can be expressed as any recipient can be expressed — i.e., as goals as well as possessors — allowing for a *to*-variant, though other appropriateness conditions may have to be met (see below).

### Evidence for first object as possessor

Many languages which lack double objects still have a core (i.e., nonadjunct) grammatical relation, distinct from subject and object, used to express possessors. They use a dative case-marked NP as the basic expression of possessors, including recipients of dative verbs.

There are, then, two dedicated modes of expressing possessors:

- the first object in a double object frame
- a dative NP

SIEWIERSKA’S (1998) GENERALIZATION: Based on a study of approximately 260 languages, Siewierska finds that no language which has a “true” dative case (i.e., use of a marker which is distinct from allative or locative markers) has a double object construction or a construction in which the recipient and patient receive the same encoding.

This observation suggests that crosslinguistically dative NPs and first objects — and thus the dative frame and double object frame — are in complementary distribution. Given this, they might be considered two sides of the same coin.

If the dative alternation were really about the semantic determinants of “objecthood”, Siewierska’s generalization would be unexpected.

Crosslinguistically, then, three frames are associated with the expression of recipients:  
— ALLATIVE FRAME (recipient as goal): theme–object, recipient–allative/locative NP/PP  
— DOUBLE OBJECT FRAME (recipient as possessor):  
    theme–second object, recipient–first object  
— DATIVE FRAME (recipient as possessor): theme–object, recipient–dative NP  
A given language’s mode of realizing recipients depends on its morphosyntactic resources, but a given language will have only one of the last two syntactic frames.

CONSEQUENCE: English *to* is not a “dative” preposition, as some suggest, but an allative preposition, and the *to*-variant is an instance of the allative frame. As Siewierska (1998:180) puts it, “Thus it appears that the term dative-shift is truly a misnomer.”

### Nonarguments for the polysemy approach

- Apparent nonsynonymy of the variants has been attributed to polysemy, but seems better treated as arising from an inference.

THE ARGUMENT: As Green (1974:157) notices, “Sentence (2a) [= (7a)] implies or entails that John learned linguistics, while (2b) [= (7b)] merely states that he was a student of linguistics, and is neutral as to whether his teacher Mary had any success in her efforts”.

- (7) a. Mary taught John linguistics.  
b. Mary taught linguistics to John. (Green 1974:157, (2))

The successful transfer interpretation in the double object variant is used to support the polysemy approach: successful transfer said to be part of the verb’s meaning in this variant.

THE COUNTERARGUMENT: Successful transfer is ACTUALLY a property of an individual verb—specifically, its lexicalized meaning—and not of (a verb in) a variant.

A PROBLEM WITH THE POLYSEMY ACCOUNT OF (7): (7b) should have the analysis of (2b), where *to* marks the goal of an abstract movement, so it is unclear where nonattainment of the goal comes from.

*The prototypical dative verb give*: It does not make sense to associate *give* with two meanings, one per variant. Transfer is always successful with *give*, independent of the variant:

- (8) Kim gave Lee a present./Kim gave a present to Lee. (both entail successful transfer)  
(9) She gave him the money, but he never got it. (contradiction)

Why? *give* lexicalizes successful transfer: it always means ‘cause to have’. As this meaning is common to both variants, the polysemy approach would need to posit distinct, but truth-conditionally equivalent meanings for them. It would be preferable to posit a single meaning and account for the choice of variant in some other way. Also holds of all verbs which lexicalize transfer of possession: *lend*, *loan*, *rent*, *sell*.

As many researchers have noted (e.g., Goldberg 1995, Koenig & Davis 2001, Oehrle 1976), the first object encodes INTENDED RECIPIENT; whether the theme is actually received seems to depend on the meaning of the individual verb.

*Other dative verbs:* If there is no reason to posit polysemy for *give*, then is there any reason to posit it for other dative verbs? Again, the answer seems to be NO.

Some researchers note that the successful transfer reading said to be associated with the double object variant is easily cancelled (e.g., Baker 1997, Davidse 1996, Oehrle 1977). (That is, *implies* seems to be the right word in the Green quote above.)

- (10) a. I taught them English for a year, but they don't seem to have learned a thing.
- b. I throw you a lifeline and you giggle. (Leuven Drama Corpus; Davidse 1996:313, (79))
- c. I threw John the ball, but it didn't reach him because of the strong wind. (Baker 1997:89, (20b))
- d. I read him the figures, but when I looked up, he was gone. (Oehrle 1977:206)
- e. When I took him his mail, I found that he had disappeared. (Oehrle 1977:206)

(10) suggests that verbs like *throw*, *teach* and *read* do not entail successful transfer in the double object variant. Why? As activity verbs, they do not lexicalize successful transfer.

What is the source of the successful transfer inference in the double object construction?

We suggest that to the extent this inference is available, it is due to a Gricean implicature. Given that there are two realizations available for the same proposition, there must be a reason for choosing one over the other.

This choice is usually made on heaviness and information structure grounds (see below). When these factors don't play a role, expression of recipient as possessor generates successful transfer implicature (since the prototypical possessor realizes a possession relation), while expression of recipient as goal may generate an implicature of nonsuccess (theme reaches goal, but goal does not take possession).

• Polysemy is used to explain why some double object variants lack *to*-variant counterparts, but this account is called into question since such *to*-variants actually exist.

- (11) a. Interviewing Richard Nixon gave Norman Mailer a book. (Oehrle 1976:44)
- b. \* Interviewing Nixon gave a book to Norman Mailer.

THE ARGUMENT: In (11) the theme comes into existence. Since there is no source of transfer, there is no real path; thus, the *to*-variant, which encodes a path, isn't available (e.g., Krifka 1999, 2001). The same logic applies to (12):

- (12) a. Martha gave Marla a headache/the creeps.
- b. ?? Martha gave a headache/the creeps to Marla.

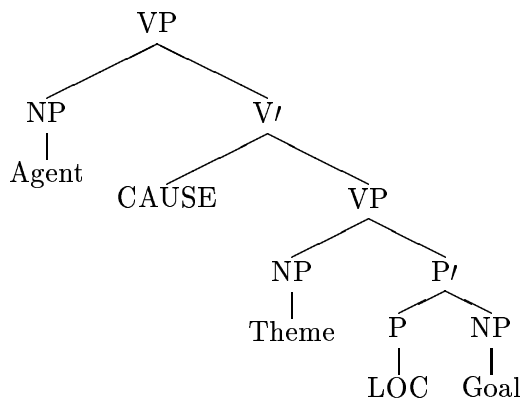
THE COUNTERARGUMENT: The allegedly nonexistent *to*-variants become possible when the recipient is a heavy NP, suggesting the explanation is not semantic.

- (13) a. Nixon's behavior gave Mailer an idea for a book. (Snyder 2001:11, (34a))  
 b. #Nixon's behavior gave an idea for a book to Mailer. (Snyder 2001:11, (34b))  
 c. Nixon's behavior gave an idea for a book to every journalist living in New York City in the 1970s. (Snyder 2001:11, (35))

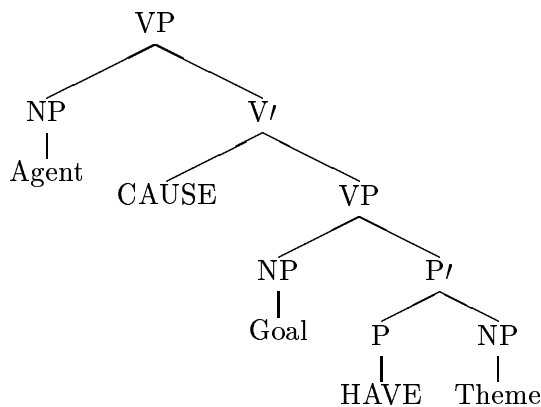
• The distribution and form of idioms across the two variants is explained by polysemy (Harley in press, Richards 2001); again, close scrutiny of the data suggests otherwise.

THE ARGUMENT: Harley (in press) uses the idiom facts to support the assignment of distinct underlying syntactic structures to the variants, assuming binary-branching, lexical decomposition in the syntax, and preposition-raising to V:

- (14) *to*-variant: 'x cause z to be at y'



- (15) Double object variant: 'x cause y to have z'



She assumes all fixed pieces of an idiom must form a constituent underlyingly, predicting:  
 — an idiom with a fixed goal should only appear in the *to*-variant  
 — an idiom with a fixed theme should only appear in the double object variant  
 — No idiom should appear in both variants since each requires a distinct argument to be fixed and the other variant would not maintain constituency.

Harley suggests that attested idioms conform to these predictions: the idioms with fixed goals in (5) appear only in the *to*-variant, and those with fixed themes in (6) are preferred in the double object variant.

THE COUNTERARGUMENT: The last prediction does not hold, depriving the polysemy approach of this form of support.

According to this prediction, fixed theme idioms shouldn't be found in the *to*-variant at all. Though some are strongly preferred in the double object variant (e.g., *give the creeps*), most are attested in the *to*-variant, counter to the prediction, as show in (16) and as discussed with respect to the idioms in (6).

- (16) a. Mr Major was set to read the riot act to ministers ... (COBUILD)  
b. Police lend an ear to the victims ... (COBUILD)  
c. Even the Argentine president, known for his weakness for women, was giving the cold shoulder to the flamboyant American singer ... (COBUILD)  
d. "... You want to give a wide berth to political discussion." (*The Columbus Dispatch*, October 23, 2001, p. 02B; Nexis)

These are just the idioms we predict to alternate: idioms with constituents analyzable as recipients, since recipients have two possible expressions.

ANOTHER COUNTERARGUMENT: Richards (2001) focuses on a third type of idiom: fixed theme idioms which appear only in the *to*-variant, contra Harley's prediction.

- (17) give rise to X, give way to X, give birth to X, give voice to X, bring word to X, ...

However, it is not surprising that these idioms don't alternate.

The *to*-NPs are not recipients; they are never expressed as possessors are.

- (18) a. Inflation gave rise to unemployment.  
b. \*Unemployment has/got rise.  
(19) a. Optimism gave way to pessimism.  
b. \*Pessimism has/got way.

THE GENERALIZATION ABOUT IDIOMS:

- The fixed constituent in an idiom is not inherently connected to the variant.
- There are fixed theme and fixed goal idioms in the *to*-variant.
- Idioms which alternate typically have a fixed theme and not a fixed recipient.  
WHY? Not a constraint on the syntactic constituency of idioms, but a constraint against fixed animate NPs, due to animate NPs not being good inputs to metaphors (Nunberg et al. 1994).

• Apparent parallels between the dative and locative alternations follow on the polysemy approach; however, these parallels do not go through fully.

THE ARGUMENT: As Rappaport & Levin (1988) and others show, the locative alternation variants differ in entailments: the *with* variant has an entailment the locative variant lacks.

- (20) a. Smith loaded hay on the truck. (locative variant)  
⇒ The hay was loaded on the wagon.  
≠ The wagon was loaded with hay.

- b. Smith loaded the truck with hay. (*with*-variant)
  - ⇒ The hay was loaded on the wagon.
  - ⇒ The wagon was loaded with hay.

Based on this, Pinker (1990) and Rappaport & Levin (1988), among others, posit distinct meanings for the variants and propose this alternation is about alternate choices of object; distinct arguments are analyzed as “affected arguments”/“causees”.

- (21) a. LOCATIVE VARIANT: [x cause [y to come to be at z] /LOAD]
- b. *with*-VARIANT: [[x cause [z to come to be in STATE] BY MEANS OF [x cause [y to come to be at z]] /SPRAY]

This analysis parallels the polysemy analyses of the dative alternation.

Compare (2) and (21): both involve an “affected argument”/object correlation.

THE COUNTERARGUMENT: The parallels break down both semantically and syntactically.

★ A difference in entailments comparable to (20) is found across all instances of the locative alternation, independent of the choice of verb, suggesting that the entailments are associated with the variants and not the individual verbs, in sharp contrast to the dative alternation.

★ With locative alternation verbs, either the location (*truck*) or locatum (*hay*) argument shows “object” properties, depending on which is object (Baker 1997, Maling 2001). That is, the alternate choice of “affected argument” in the locative alternation shows its effect in a large range of object properties.

- (22) a. Nominalization:
    - the loading of hay onto wagons
    - the loading of wagons with hay
  - b. Compound formation:
    - hay-loading
    - truck-loading
  - c. Secondary predication:
    - John loaded the hay into the wagon green.
    - John loaded the wagon full with hay. (Williams 1984:204, (2a,b))
- (based on Baker (1997:90-94))

In striking contrast, only the theme argument—and never the recipient argument—of dative verbs shows these “object” properties (Baker 1996, 1997, Marantz 1993, Maling 2001).

- (23) a. Nominalization:
    - the giving of gifts to the homeless
    - \* the giving of the homeless (of) gifts. (Fraser 1970:92)
  - b. Compound formation:
    - secret-telling (to spies), book-reading (to children)
    - \* spy-telling (of secrets), \*child-reading (of books)
  - c. Secondary predication:
    - I gave Mary the meat raw.
    - \* I gave Mary the meat hungry.
    - I gave the meat to Mary raw.
- (based on Baker (1997:90-94))



Since the locative alternation properties in (22) have been explained by positing two meanings, a comparable analysis of the dative alternation isn't possible.

\* Some languages, like Russian, have the locative, but not the dative, alternation, suggesting they are independent phenomena.

### Choosing a variant: Information structure and heaviness considerations

Studies of texts show the distribution of double object and *to*-variants is largely governed by information structure and heaviness considerations (e.g., Arnold et al. 2000, Davidse 1996, Erteschik-Shir 1979, Givón 1984, Polinsky 1996, Ransom 1979, Snyder 2001, Thompson 1990, 1995, Wasow 1997).

The choice is determined by the following interacting constraints:

- given material comes before new material (Information structure)
- heavy material comes last (Heaviness)

CONSEQUENCE: For certain choices of theme and recipient it is difficult to get both variants.

- Since recipients are typically human and, therefore, likely to be given, they should linearly precede themes, resulting in a preference for the double object variant.

- (24) a. Nixon's behavior gave Mailer an idea for a book. (Snyder 2001:11, (34a))  
b. #Nixon's behavior gave an idea for a book to Mailer. (Snyder 2001:11, (34b))  
c. Nixon's behavior gave an idea for a book to every journalist living in New York City in the 1970s. (Snyder 2001:11, (35))

Most likely, in (24) the recipient, *Mailer*, is the topic of conversation and thus given, while the theme, *an idea for a book*, is new information.

Double object variant preference may be overridden by heaviness considerations (see (24c)).

If there is a plausible scenario in which the notion of a book idea is given, perhaps as in (25), the *to*-variant is fine and may even be preferred.

- (25) A: It is very difficult to get book ideas simply from interviews.  
B: Well, interviewing Nixon gave an idea for a book to Mailer.

- Apparent obligatoriness of double object variant with illnesses is not a semantic effect; rather, it reflects newness considerations: the illness is usually the new information.

When the illness is old information, the *to*-variant is possible:

- (26) a. John gave Mary pneumonia and he gave it to Ted too.  
b. \*John gave Mary pneumonia and he gave Ted it too.  
(Erteschik-Shir 1979:453, (32)-(33))

- Fixed theme idioms (e.g., (6)) occur most often in double object variant: their themes denote abstract states and thus are unlikely to be old information, as required for *to*-variant.

Yet even those fixed theme idioms which are much preferred in the double object variant can appear in the *to*-variant, if the recipient is sufficiently heavy.

- (27) a. “Doing my taxes” gives a headache to 22 percent of Americans surveyed for Bristol-Myers Squibb, which makes Excedrin pain-relief medicine. “Beating the tax deadline” gave headaches to 38 percent . . . (*The Buffalo News*, March 21, 1993, p. 9; Nexis)
- b. . . . sending a copy to every elector is a nice gesture, but futile, because it is unreadable, guaranteed to give a headache to anyone who looks hard at the small print. (*The Guardian (London)*, September 17, 1992, p. 23; Nexis)

But it is not difficult to find *to*-variants of these idioms without heavy NPs.

- (28) Gordie Gillespie still can give a piece of his mind to the umps . . . (*Milwaukee Journal Sentinel*, April 21, 1996, p. 1; Nexis)

- The set of verbs cited as being found only in the double object variant varies greatly; there is no apparent consensus concerning its members.

We suggest that most have possessors which are difficult to construe as recipients. If the possessor of such a verb is at all construable as a recipient, under the appropriate circumstances, it should be expressible as a goal and the verb found in the *to*-variant.

As predicted, some of these verbs are indeed found in the *to*-variant.

- (29) a. And why begrudge success to a young man who apparently lived a difficult, poor and unhappy childhood? (<http://www.cosmicbaseball.com/eminem01.html>; Google search)
- b. The priesthood is still denied to women . . . (COBUILD)
- c. An unwelcome landmark was passed when the Medical Protection Society started charging differential fees to different kinds of doctors. (*The Observer* 9.12.90; Herriman 1995:114, n.8, (i))
- d. Couldn't you spare just one minute to these poor people who have been waiting here since ten o'clock this morning? (Herriman 1995:152, (15))
- e. . . . we realize that if ever we ask a question to the trainer, you're asking questions to him and they keep answering them . . . (BNC)

The possessor is much more difficult to construe as recipient with other purportedly non-alternating verbs, e.g., *envy*, *cost*, *fine*, *save*, *forgive*. With *envy* and possibly some others, there is a static inalienable possession relation between the two nonsubject arguments.

- Verb-specific preferences for one variant (Wasow p.c.; cf. Davidse 1996):  
*sell* is more often used in the *to*-variant and *give* in the double object variant.

A REASON: The recipient is more likely to be known in the description of a giving event than of a selling event. Sellers tend to be identified by their merchandise (theme) and don't know their customers (recipient), but usually things are given to people or groups who have been identified. Here givenness and weight work together, since *give* is more often used with pronominal recipients than *sell*.

Compare the ease with which *sell* can be used without a recipient (*Pat sells guitars*), to the apparent obligatoriness of a recipient with *give* (*??Pat gives guitars*).

## Conclusion

- The dative alternation is about alternate realizations of recipients and not about alternate ways for satisfying the semantic determinants of objecthood.
- This approach naturally allows for verb-external factors to enter into the choice between variants by shifting the burden of explanation onto principles of information structure, morphosyntactic realization, and prosodic structure (heaviness). It doesn't, however, preclude syntactic or semantic explanations of some properties.
- In English the choice of variant is largely determined by information structure and heaviness considerations. To the extent that such considerations explain the choice of variant in English, there seems no reason to appeal primarily to lexical semantic considerations, which can turn out to be problematic.

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