Please cite as:
Bohnemeyer, J., & Caelen, M. (1999). The ECOM clips: A stimulus for the linguistic coding of event complexity. In D. Wilkins (Ed.), *Manual for the 1999 Field Season* (pp. 74-86). Nijmegen: Max Planck Institute for Psycholinguistics. doi:10.17617/2.874627.

REGULATIONS ON USE

Stephen C. Levinson and Asifa Majid

This website and the materials herewith supplied have been developed by members of the Language and Cognition Department of the Max Planck Institute for Psycholinguistics (formerly the Cognitive Anthropology Research Group). In a number of cases materials were designed in collaboration with staff from other MPI departments.

Proper citation and attribution

Any use of the materials should be acknowledged in publications, presentations and other public materials. Entries have been developed by different individuals. Please cite authors as indicated on the webpage and front page of the pdf entry. Use of associated stimuli should also be cited by acknowledging the field manual entry. Intellectual property rights are hereby asserted.

Creative Commons license

Background

The field manuals were originally intended as working documents for internal use only. They were supplemented by verbal instructions and additional guidelines in many cases. If you have questions about using the materials, or comments on the viability in various field situations, feel free to get in touch with the authors.

Contact

Email us via library@mpi.nl
Max Planck Institute for Psycholinguistics
P.O. Box 310, 6500 AH, Nijmegen, The Netherlands

8. The ECOM clips

A stimulus for the linguistic coding of event complexity

Jürgen Bohnemeyer & Martijn Caelen

July 1999

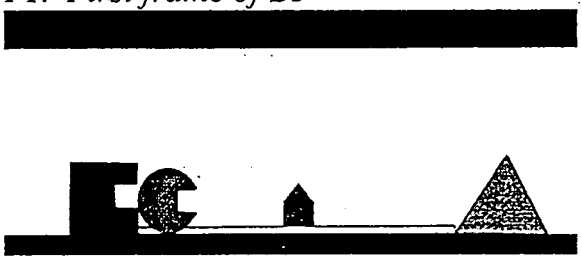
Introduction. Aside from being devised for a project that is itself only in an exploratory state, namely *Event X*, ECOM (short for Event COMplexity) is a pilot in at least two other respects. First, in its present form, ECOM is only meant to serve in *linguistic elicitation*. If it proves useful for this purpose, it will be revised for future field seasons according to the researchers' experiences with the present edition. Second, if the ECOM study reveals significant cross-linguistic differences in event representation, then a successor will be deployed at a later stage in *perception and cognition* studies to investigate to what extent cross-cultural variation in *mental* event representation aligns with the variation in verbal event coding.

Aim of the study. ECOM is designed to explore how languages differ in integrating the subevents of the same complex scenarios into macro-events, and how they accordingly *segment* these scenarios into macro-events. One example of the ECOM clips, B5, has already been discussed in the general introduction. F1, F2 below illustrate the first and the last frame of B5. This clip shows a locomotion along a complex path. In English, an adequate description of this scene can be given in just one clause, whereas in Yukatek Maya, a minimum of four clauses is required, if each of the location changes with respect to one of the ground objects is to be made explicit.

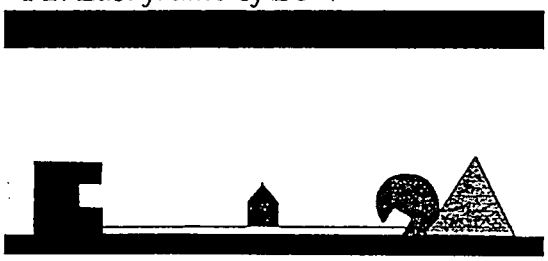
Another example is illustrated in F3, F4 below. These are two frames of E1 which show a caused state-change of the breaking type. Between these two frames, the red circle hits the green triangle with the yellow bar, and the triangle breaks into half. This clip may now be contrasted with one in which exactly the same events occur, only this time there is a lapse between the contact of the yellow bar with the triangle and the breaking of the triangle. In another variant, the circle does not actually hit the triangle itself, but only the ground next to the triangle. Now if the construction a particular language favors in describing E1 does not entail spatio-temporal adjacency and direct physical impact, then it may be expected that this construction makes for just as good a description for those variants than it does for E1 - at least in *semantic* terms (whether it also does pragmatically will depend on whether an alternative description conveying tighter event integration is at all available in the language).

Or consider the case depicted in F5, F6: between the two frames shown in F5 and F6, the blue square bumps into the red circle, the collision causes the circle to drop the yellow bar onto the green triangle, and the triangle breaks and falls apart. This clip may be compared to other clips in the stimulus in which the circle spontaneously drops the yellow bar, or in which the circle breaks the triangle more intentionally, as in E1 illustrated above. Can E7 be appropriately described by saying something equivalent to *The blue square / the red circle / the yellow bar / broke the green triangle / caused the green triangle to break*? Is E1 more adequately described by *The red circle broke the green triangle* than E7? Does the adequacy of *The red circle broke the green triangle* as a description of E7 depend on whether the same utterance could also describe the clip in which the red circle drops the yellow bar spontaneously?

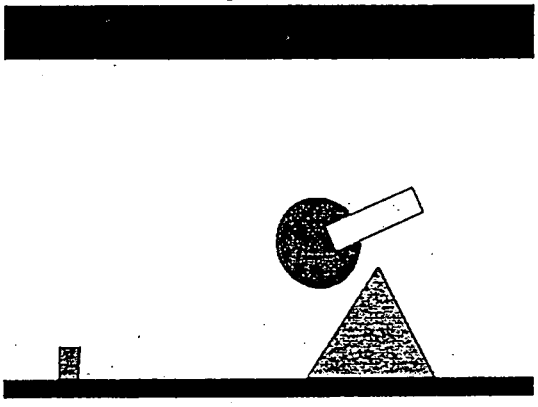
F1. *First frame of B5*



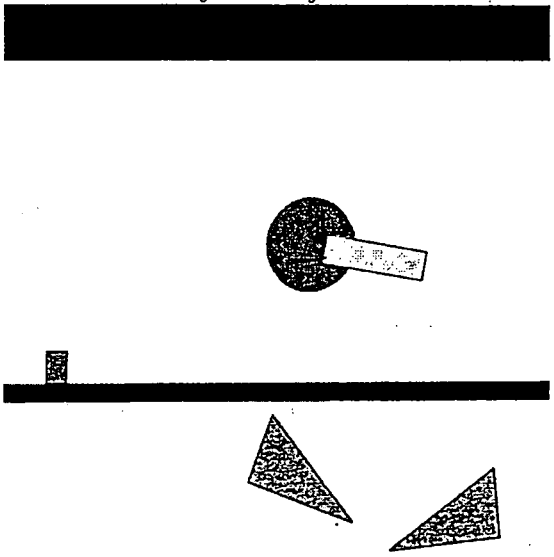
F2. *Last frame of B5*



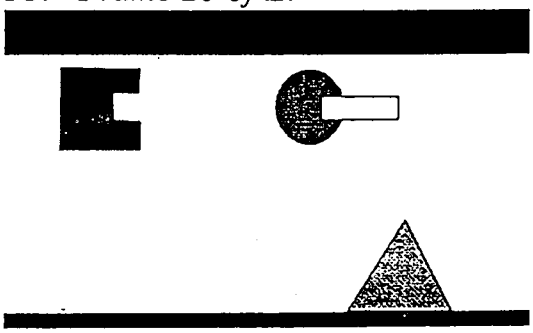
F3. *Frame 90 of E1*



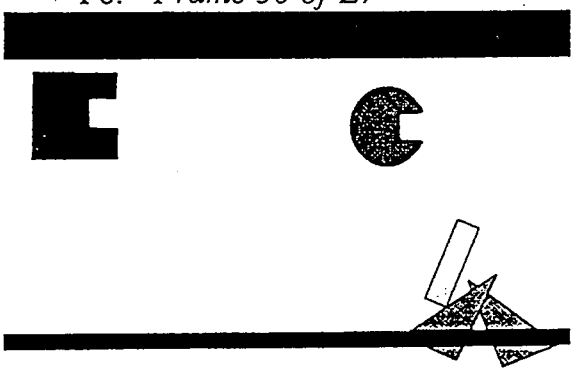
F4. *Last frame of E1*



F5. *Frame 20 of E7*



F6. *Frame 50 of E7*



The kind of data ECOM yields, after morphosyntactic analysis, are constructions that the speakers of a particular language use in their preferred descriptions of the scenes (or in the most concise description possible). [See Dutch transcript in appendix.] However, in order to be able to compare these constructions across languages for the semantic event construal they convey, this event construal needs to be assessed first. Some criteria that may help in the semantic analysis of event integration have been suggested at the end of the general introduction to Part IV.

Structure of the stimulus. The ECOM clips are grouped into 14 sets, such that each set consists of several clips representing different variations over the same basic scenario. For example, the breaking scenes E1 and E7 illustrated above are two out of 11 scenes that vary a scenario in which a green triangle is broken in half. Seven of the 14 sets of clips present scenarios of motion and caused motion along paths of varying complexity, combinations of location changes with different manners of motion, state changes embedded in causal chains of varying complexity, and transfer (i.e. change of possession). The remaining seven sets are inspired by a classical stimulus of event perception research, namely the stimulus A. Michotte and his collaborators employed to investigate the perception of 'phenomenal causality' (cf. Michotte & Thinès 1963). These scenes show ballistic collisions of an object in motion (in the ECOM clips, a red circle) with an object that is stationary up to the moment of collision (in the ECOM clips, a blue square). Depending on the ratio of the speed of the two objects after the collision, and on the directionality of their trajectories, these collision events are viewed as instantiating various patterns of 'launching', 'triggering', 'entraining', and the like, which may be considered different interpretations of the causal impact the collision of the first object has on the motion of the second object. These scenes are then further varied according to whether or not there is spatial or temporal distance between the two objects at the moment of impact.

There are altogether 74 scenes in the stimulus (plus one scene which merely serves to disambiguate the perspective from which the scenes are supposed to be viewed). Each scene is only a few seconds long. The scenes are realized as animations with simple geometrical objects, just as in the examples given above. In most of the scenes, some of the objects are equipped with indentations that allow them to grab and carry other objects. In addition, some of the objects are sometimes provided with faces that are meant to serve as animacy cues, but that will sometimes be hard to recognize on the video tapes.

Organization of the tapes. The ECOM clips have been arranged in four different video tape editions. There are two complete and two short versions, the former comprising all 74-plus-one scenes, the latter containing only 34-plus-one scenes. The short editions lack all transfer scenes. Another set of scenes that has been omitted from the short editions shows a yellow bar that is "dropped" by one of the "characters". In the complete versions of the ECOM tapes, these two sets of scenes are located at the end of the tape, so the field worker may leave them out in case (s)he runs out of time. The short edition also lacks some of the Michotte sets, and the remaining sets have been reduced in the number of variations that are included on the tape.

Both the complete and the short edition of the ECOM clips come in two versions, an ordered one and a randomized one. The ordered editions preserve the internal order of
the clips within the sets. Within a set, all scenes instantiate minimal variations of the same basic scenario and show the same characters, so two subsequent scenes may be used to elicit a minimal contrast in event construal. The ordered versions of the ECOM tapes are meant to be used in an elicitation procedure in which the field worker asks for a full description for the first clip of each set. Then, with respect to each of the subsequent scenes of the same set, the field worker may simply ask the consultant to describe the *difference* between this scene and the previous one. Of course, what this approach is aimed at is not some kind of list of differences between two consecutive scenes, but rather a *description of each*

scene that is *focused* on what distinguishes each scene from the one preceding it. However, experience shows that by simply asking, "What's the difference between the scene you saw just now and the one you saw before?", the researcher will normally gear the consultant to produce just the kind of *contrastive description* this methodology is targeted at. For illustration, a sample transcript from a pilot session conducted with the contrastive-description approach is appended to this section. The methodology is elaborated on below.

The following table states the lengths of the four editions of ECOM:

Edition	Duration
Ordered long	22:59 minutes
Ordered short	11:23 minutes
Randomized long	21:44 minutes
Randomized short	9:30 minutes

The pilots that have been done with ECOM show that a complete session employing this procedure and the long version of the tape will take a little more than one hour. The randomized editions of the tapes are meant for a full-blown elicitation study in which the researcher not only records a description for each scene, but also asks the consultant about the adequacy of alternative descriptions. Such a session, when conducted with the long version of ECOM, will take about three hours. The short editions will only take about half of the time required for the long ones.

The following table gives for each of the four editions the order of the clips on the tape:

Edition	Clips
short ordered	A00, A1, A2, A00, B5, A1, A4, A5, A00, C6, A1, A7, A10, A00, D1-D4, A1, A11, A13, A00, E1-E4, A00, E1, E5-E11, A1, A20-A23, A00, H1-H4, H7
short randomized	A00, A5, E3, E8, A13, A00, B5, D3, D4, A1, A00, E5, H1, A7, A22, A4, A00, E10, A23, A21, A00, E9, D2, E6, A11, A00, E4, E1, D1, H7, A00, H2, E2, E11, A00, C6, H4, H3, E7, A2, A20, A10
long ordered	A00, A1-A3, A00, B1-B5, A1, A4-A6, A00, C1-C6, A1, A7-10, A00, D1-D4, A1, A11-A15, A00, E1-E4, A1, A16-A19, A00, E1, E5-E11, A1, A20-A23, A00, H1-H7, A1, A24-A27, A00, F1-F11, A00, G1-G3
long randomized	A00, A3, A5, A00, E3, E8, A13, B5, A16, A6, A00, C2, A8, A00, B1, D3, D4, B2, A1, A19, A00, B3, E5, A25, A00, H1, A7, H5, A15, A22, A4, A00, E10, A23, A21, C4, A14, A00, E9, A26, D2, H6, E6, A11, A00, E4, E1, D1, H7, A18, A00, C3, H2, E2, A9, C1, E11, A17, A00, C6, H4, H3, A12, E7, A2, A00, B4, A27, C5, A24, A20, A10, A00, F6, G3, F1, F11, F2, G2, A00, F8, F10, F3, F4, G1, F5, F9, F7

The clips are referred to by the IDs that announce them on the title pages on the tapes. A-clips comprise the seven sets of "Michotte" scenes (A1-A3, A4-A6, A7-A10, A11-A15, A16-19, A20–23, A24-A27) plus A00 which is the clip used to anchor the viewer's perspective. B and C-scenes animate motions along paths of varying complexity (B-clips were illustrated in F1, F2 above), D-scenes show combinations of location changes and manners of motion, E-clips represent breaking events (cf. F3-F6 above), F-scenes are variations over a transfer

scenario, G-clips show dropping events, and H-clips deal with the causal integration of activities and location changes.

On all of the tapes, every scene is repeated once. The scenes are preceded by a title showing their ID. After the scene comes a title saying "ONCE AGAIN", then follows the repetition. Titles and clips are separated by black screens of 1-2 seconds' duration. In the ordered editions, some of the sets share the first clip. Recollect that the ordered editions are designed for a contrastive-description task in which each scene except for the first one of the particular set serves to elicit a *difference* in event construal with respect to the preceding clip. The first clip of each set represents the point of departure from which the chain of comparisons across the set starts. The scenes that have been chosen as points of departure are the basic representations of the ECOM scenarios. Since there are more sets than scenarios, those sets that contain variations of the same scenario share the first scene. For example, all seven sets of 'Michotte' scenes start with same clip A1 (a representation of Michotte's 'launching' event type). Finally, the scene A00 included to anchor the viewer's perspective is repeated several times across the tape.

A note on visual quality. The Hi8 video editions of the ECOM clips, especially when displayed on a watchman screen, are unfortunately rather demanding in the recognizability of the characters and their properties. The images are fairly small, and with the E- and F-scenes, there is no good adjustment of the parameters hue and brightness that would allow you to make the yellow bar and the face of the blue square visible at the same time. Note that all ECOM clips are also available as QuickTime movies on the computer. The field workers are encouraged to display the ECOM clips on their laptop rather than on the watchman. The visual quality on the laptop display is far better than the one on the watchman. For NTSC users, the problems will be even worse than for Pal users. If you do decide to use the laptop, you'll need to know in which order to display the clips. Consult the table in the previous section. If you decide to work with the video tapes, here's what to do about the color problem: pick some among the E- and F-scenes which show the blue square with a face, increase the hue and brightness of the watchman screen until the face becomes visible, show these scenes to the consultant to convince him or her that the blue square has indeed a face, then set the hue and brightness adjustments back to default, so that the yellow bar becomes visible again, and follow the normal elicitation procedure.

Procedures. The recommended minimum number of consultants for the ECOM study is three. Most efficient will probably be a mixture of the fully-fleshed elicitation approach with the randomized set and the contrast elicitation approach with the ordered set. The researcher may want to start with the contrast approach, because that one doesn't require him or her to produce alternative descriptions of the scenes himself or herself, but on the contrary provides the researcher with ways to describe the scenes that (s)he can later on try on other consultants with the randomized set. However, it's the more tedious and time-consuming work with the randomized set that will yield the quality data! So everybody should include at least one randomized-edition session, and the higher the ratio of randomized-edition sessions, the better the data. The following table is meant to give an idea of what a particular combination of ordered-edition sessions and randomized-edition sessions might mean in terms of the time requirements just for the sessions.

Edition	# ordered-edition sessions	# randomized-edition sessions	estimated total time to run the sessions
short	2	1	2.5 hours
short	1	2	3.5 hours
short	0	3	4.5 hours
long	2	1	5 hours
long	1	2	7 hours
long	0	3	9 hours

It is not desirable to combine long-version sessions and short-version sessions, to the extent that the field worker will want to elicit descriptions of every clip in the long edition with at least three consultants. We suggest to make a decision between the long and the short edition based on the following criteria:

- the time the field worker can devote to the ECOM study
- the field worker's interest in the Event-X project
- the field worker's expectations concerning the relevance of the data (s)he may collect using ECOM

Even colleagues who plan to work with the complete editions should consider taking along copies of the short-edition tapes as well, as a backup in case they run out of time.

When using the ordered-edition tapes, the researcher should follow these steps:

- show the consultant the first clip of a set (and its repetition)
- ask the consultant for a description of this scene ("What happened in the film that you just saw?")
- show the next clip in the set (and its repetition)
- prompt the consultant for a description of this scene that focuses on the difference between this scene and the preceding one, asking something like "What is the difference between this scene and the one you saw before?"
- continue the last two steps until the set is done, then start the next set with the first step

The table in the preceding section will help the field worker to identify which clips are the first in their sets. Note that the difference between two subsequent clips in a set does not always reside *just* in the event construal. The clips also occasionally differ in the characters they show, or even in the speed at which characters and objects move. If something like that is all the consultant states in the way of a contrast, press the consultant for a difference in the event construal ("Did something different happen? Was there a difference in what happened, or in the way things happened?"). If that doesn't help, ask for a full description of the scene at stake (you may want to repeat the clip at this point). A sample transcript from a pilot conducted with the contrastive-description method is appended to this section.

The recommended procedure with the randomized edition is as follows:

- show the consultant a clip (and its repetition)
- ask the consultant for a description of this scene ("What happened in the film that you just saw?")
- ask the consultant about the applicability of alternative descriptions

Alternative descriptions the researcher may want to check are in particular descriptions that show a tighter event integration than the one the consultant produced. One way to obtain a sample of constructions which the language provides to talk about complex events of the relevant kind without the researcher having to produce these constructions himself or herself first is the contrastive-description approach with the ordered edition of ECOM. So the recommendation here is to run one contrastive-description session first, and then use the constructions produced by the consultant during that session in later sessions with the randomized edition to ask other consultants whether they would accept these constructions in descriptions of particular scenes.

The table below gives some ideas as to what things the field worker might want to check with respect to descriptions of particular scenes. In general, the guiding question is, what is the most compact description of the scene that the consultant considers adequate, where compactness is measured in terms of the number of macro-events referred to. The number of macro-events may be assessed, in very rough approximation, by the number of clauses, but see the semantic tests suggested in the following section for more adequate criteria.

Set	Example questions
"Michotte" (the A-sets)	(Can you say) "The red circle (hit the blue square and) launched/pushed/dragged it away/off (the stage)?" / "The red circle (hit the blue square and) (it/both) bounced back"?
"Complex paths" (sets B and C)	(Can you say) "The red circle rolled/went (rolling) from the blue square along the yellow bar past the brown house-shaped thing to the green triangle"? (i.e., how many location changes with respect to subsequent grounds can be integrated into one motion event clause, without using more than one change-of-location predicate?)
"Path-plus-manner" (set D)	(Can you say) "The red circle rolled out of the left container and zigzagged/jumped into the right one"?
"Breaking" (set E)	(Can you say) "The blue square / the red circle / the yellow bar / broke the green triangle"? (i.e. how many links in the causal chain can be integrated into one macro-event, and what degree of indirectness of causation is tolerated in the representation of the causer?)
"Transfer" (set F)	(Can you say) "The red circle gave/picked/broke the blue square the yellow bar"? (i.e., which scenes are described such that change of possession is really entailed, and which scenes are described such that the blue square is treated merely as a beneficiary or goal? Note that there are several scenes in which the transfer is unsuccessful. Does this make a difference for the description?)
"Drop" (set G)	(Can you say) "The green triangle dropped the yellow bar" (i.e. even when the green triangle tickled the red circle, and the red circle dropped the yellow bar because of that)?
"Ramp" (set H)	(Can you say) "The red circle rolled up the ramp (or ascended the ramp rolling)" (i.e. even if it was only rotating inside a cart which was pushed up the ramp by the green triangle)?

In principle, we are interested in three types of descriptions of each scene, to the extent that these differ:

- the description the consultant produced when first prompted
- the description the consultant considers the most compact one that is still possible ("Can you imagine somebody describing this scene saying X? And if so, would you consider that a valid description?")
- the description the consultant considers the preferred one

Aside from the most compact adequate description of a particular scene, the researcher might also be interested in eliciting the most expanded or detailed description. This will in most cases not be an easy thing to do, as languages usually offer a great variety of alternative descriptions of the same scene, all differing in their level of 'granularity'. However, it is indeed to be expected that there is a principled boundary for the granularity of the description of any particular scene in any particular language. This boundary will be determined, among other things, by the *micro-event representations* of the language, i.e. the smallest lexicalized event representations. The researcher should by all means feel encouraged to pursue this question, while at the same time for the project as a whole, this has to remain of lower priority than the ones listed above for the time being.

No matter whether working with the contrastive-description approach using the ordered ECOM edition or with the unfocused-elicitation approach using the randomized ECOM edition, the descriptions the researcher collects using ECOM need to be further analyzed semantically in terms of event integration before they can even count as raw data for Event X, along the lines of the criteria suggested at the end of the general introduction to the Event-X module. Recollect, however, that this does not need to be done for every individual description, but only for every construction that occurs in the description (we're talking types, not tokens).

References

Michotte, A. & Thinès, G. (1963). La causalité perceptive [Perceptual causality]. *Journal de Psychologie Normale et Pathologique* 60: 9-36. Reprinted in G. Thinès, A. Costall & G. Butterworth (Eds.) (1991), *Michotte's Experimental Phenomenology of Perception*. Hillsdale, N.J. etc.: Lawrence Erlbaum. 66-87 (English translation by the editors).

APPENDIX to §8: Sample transcript

Session:	ECOM ordered long edition (here: set E1, E5-E11); contrastive elicitation
Date:	June 1999
Target Language:	Dutch
Consultant:	[redacted] (M)[1]
Researcher:	Jürgen Bohnemeyer (J)
Transcript:	Özlem Seyrani
Translation & Analysis:	Jürgen Bohnemeyer

-J: *Nou nog een keer E1. ... Ik herhaal E1 nog een keer, dit is nog steeds E1. ...*
Now once more E1. ... I repeat E1 one more time, this is still E1. ...

Nu had ik graag dat je dat fragment {filmtje, JB}vertelt {verglijkt, JB} met E5. ... En nog een keer. ...
Now I would like you to compare this clip to E5 ... And once again ...

Wat is het verschil tussen E1 en E5 ?
What's the difference between E1 and E5

-M: *...balletje komt weer aan rollen. Pikt het driehoek - de rechthoek weer op, stijgt op,*
...ball comes rolling again. Picks the triangle - the rectangle up again, goes up,

en in plaats van direct op het driehoek te slaan laat het boven de driehoek de rechthoek vallen,
and instead of beating the triangle directly, **it drops the rectanlge above the triangle,**

zodat het driehoek uit elkaar - zodat hij breekt.
so that the triangle apart - so that it breaks.

Analysis:	adverbial clause construction with consequential connective *zodat*
Evaluation:	clearly two macro-events
Remarks:	the contact between the yellow bar ("rectangle") and the triangle is not made exlicit

-J: *Ja precies. ... En nou E6. ... ... Wat is het verschil tussen E5 en E6 ?*
Yes, exactly. ... And now E6. ... ... What's the difference between E5 and E6?

-M: *Er is een figuur bij gekomen. Voorheen {?}de vierkant met de hap eruit,*
A figure has been added. Before {?} the square with the gap left free,

die heeft een - ook een driehoek vast, eh, een rechthoek,
that one has a - also holds a triangle, uh, a rectangle,

kriebelt als het ware de balletje zodat die zijn rechthoek laat vallen
tickels as it were the ball so that that one drops its rectangle

en dat valt boven op de driehoek, zodat hij uit elkaar valt.
and that falls on the triangle, so that it {the triangle, JB} falls apart.

[1] Note that [redacted] did not work on ECOM before he was debriefed, having served as the very first pilot subject. In other words, at the time this session was recorded, [redacted] knew nothing about ECOM or its purpose.

Analysis:	• two independent sentences, each consisting of an adverbial clause construction with the consequential connective *zodat*, connected by *en* 'and' • only the first clause constains a transitive accomplishment verb form *kriebelt* 'tickels'; all other verb tokens are of the intransitive unaccusative motion verb *vallen* 'fall'
Evaluation:	min. five subevents, integrated into four macro-events

-J: Nu E7. Hier is E7. ... En nog een keertje. ... Nou wat is het verschil tussen E7 en E6 ?
Now E7. Here's E7. And one more time. Now what's the difference between E7 and E6?

-M: In E7 komt een vierkant aan, waar in plaats van balletje te kriebelen komt hij echt hard aan zetten
In E7 a square approaches, where instead of tickeling the ball it rushes towards it really hard

en duwt als het ware de rechthoek weg van,
and pushes as it were the rectangle away from it,

of zorgt ervoor dat het balletje de rechthoek niet vast kan houden,
or makes sure that the ball can't hold the rectangle,

dat de bal {rechthoek, JB} op de driehoek valt, en driehoek uit elkaar valt.
that the ball {rectangle, JB} falls on the triangle and triangle falls apart.

Analysis:	periphrastic causative construction headed by *zorgt ervoor dat*, with three coordinated complement clauses
Evaluation:	the events referred to by the complement clauses are distinct macro-events, but the degree of integration of the causing event with this sequence of macro-events is not entirely clear
Remarks:	the temporal and causal relations between the events referred to by the three complement clauses is left to implicature

-J: ... E8 ... Okay. Wat is het - wat is het verschil tussen E7 en E8 ?
... E8 ... Okay. What's the - what's the difference between E7 and E8?

-M: Het balletje is er niet meer. Het is het zelfde principe.
The ball is no longer there. It's the same principle.

De vierkant komt aan rollen, heeft geen object meer, maar duwt,
The square comes rolling, doesn't have an object anymore, but pushes,

ja botst als het ware met de driehoek zodat hij breekt en valt van de zelfde laag.
yes, bumps as it were into the triangle, so that it {the triangle, JB} breaks and falls from the same layer.

Analysis:	adverbial clause construction with consequential connective *zodat*, main clause headed by contact verb *botsen* 'bump', two adverbial clauses coordinated with *en*, each headed by an unaccusative verb
Evaluation:	three macro-events
Remarks:	the causal and temporal relation between the breaking event and the falling event are underspecified - it is equally conceivable to interpret the falling as the consequence of the breaking and to interpret both breaking and falling as independent consequences of the contact event; the construction is ambiguous between these readings (or rather *vague*)

-J: *En nu E9.*
And now E9.

-M: *Balletje komt aan rollen, pikt de rechthoek op en stijgt op*
Ball comes rolling, picks up the rectangle and goes up

en het is - ja het is net of je {ie't, JB} weg werpt op een gegeven moment
and it's - yes it's just as if **it throws it away at a given moment**

en dan komt hij boven op het driehoek
and then it {the yellow bar, JB} comes down on the triangle,

en valt die uit van de zwarte lijn en breekt hij.
and that one falls down from the black line and breaks.

Analysis:	four independent sentences, coordinated by *en (dan)* 'and (then)', the first headed by a transitive caused-motion verb *werpen* 'throw', the following two by intransitive unaccusative motion verbs *komen* 'come' and *vallen* 'fall', the final one by an intransitive state-change verb *breeken* 'break'
Evaluation:	min. 5 subevents, integrated into four macro-events
Remarks:	• the causal and temporal relations between the events referred to by the four sentences are almost entirely underspecified • the breaking and the falling event are referred to in anti-iconic order - production error?

-J: *En nou E10. ... Nog een keer. ... Nou...*

-M: *EE effen kijken... vierkant komt aan met een rechthoek weer,*
Uh let's see... square comes with a rectangle again,

en dan zwaait hij op een gegeven moment mee
and then it brandishes it at a certain moment

en dan werpt, werpt ja het balletje de rechthoek weg
and then the ball throws the rectangle away, right,

en het gezicht verandert van een neutrale in een verdrietige blik,
and the face changes from a neutral to a sad look,

het - ee, de driehoek breekt en valt uit elkaar.
the - uhm, the triangle breaks and falls apart.

Analysis:	five independent sentences connected by *en (dan)* 'and (then)' or zero, headed by: • transitive caused motion verb *zwaaien* 'swing', 'brandish' • transitive caused motion verb *werpen* 'throw' • intransitive state-change verb *veranderen* 'change' • intransitive state-change verb *breeken* 'break' • intransitive unaccusative motion verb *vallen* 'fall'
Evaluation:	min. 7 subevents, integrated into 5 macro-events
Remarks:	• the causal and temporal relation between all subevents except for those co-lexicalized in the two transitive verbs are left to implicature (note that the events are represented in iconic order)

-J: *Maar kun je, kun je een relatie tussen de twee gebeurtenissen, of de twee figuren, zeg maar, uitleggen?*
But can you, can you identify a relationship between the two events, or let's say the two characters?

-M: *EEhm... moeilijk*
Uh... difficult

-J: *Is dit dus niet duidelijk ?*
So that's not clear?

-M: *Nee.*
No.

-J: *OK.*
Okay.

-M: *Het is als of ie dreigt {unintelligible} maar ...verder niet.*[2]
It's as if it threatens {unintelligible} but ... that's it.

-J: *OK, nu nog een filmpje die je ziet. E11. ... Nog een keer. ...*
Okay, now one more film that you'll see. E11... Once again ...

Wat is het verschil tussen deze film en de films die we eerder hebben gezien ?
What's the difference between this film and the films that we saw earlier?

-M: *Er is een extra instrument toegevoegd. Het balletje staat op een wip, of een kiepplank zeg maar.*
An extra instrument has been added. The ball is on a seesaw, let's say, on a tipping board.

Daar boven hangt een vierkant aan een zwarte lijn.
Above it is a square hanging from a black line.

Vierkant valt naar beneden en zorgt dat het balletje weggeworpen wordt door die wip.
Square falls down and causes the ball to be thrown off by that seesaw.

[2] [redacted] did at this point not completely understand the relationship between the action of the blue square and the subsequent events involving the red circle. The idea was that the square intimidates the circle, and thereby causes the latter to throw the yellow bar onto the triangle. In the meantime, this scene has been rectified.

Valt boven op de driehoek en de driehoek breekt.
Falls on top of the triangle and the triangle breaks.

Analysis:	• two independent sentences connected by zero • each sentence contains two clauses combined by gapping with *en* • the second clause is complex, it contains a periphrastic causative construction headed by *zorgt (ervoor) dat* • the complement of this causative construction is constituted by a passive with a by phrase (so this construction expresses a direct and an indirect causer) • the remaining clauses are headed by the intransitive unaccusative verbs *vallen* 'fall' and *breeken* 'break'
Evaluation:	• min. 6 subevents • each of the coordinated (simple or complex) clauses expresses an independent macro-event • the degree of event integration conveyed by the causative construction *zorgt (ervoor) dat* is even less tight than with *caused to*. The subevents are clearly specifiable for separate locations in time (e.g. *Hij zorgte gisteren ervoor dat Jan morgen iets te eeten heeft* lit. 'He took care of it yesterday that Jan will have something to eat tomorrow')
Remarks:	• the causal and temporal relations between the throwing, falling, and breaking events are left implicit