

Do all Telic-Perfective Sentences (Always) Culminate? An Exploratory Study on Event Culmination in Italian Monolingual Adults.

In the traditional analysis, telic-perfective sentences entail event culmination [1, 2]. Therefore, these sentences can be judged true only when used to describe a culminated event. According to Krifka's mereological theory, telicity is compositionally derived at the VP level from the combination of the verb's semantics and its direct object. Moreover, telicity is defined by the quantization properties of predicates and the notions of 'homogeneity' and 'cumulativity'. Nevertheless, there is agreement in the literature that telic predicates are not a homogeneous class: some predicates, indeed, exhibit what has been called 'variable telicity', allowing for both telic and atelic interpretations [3]. Moreover, according to van Hout [4], several studies investigating children's acquisition of event culmination have found a relatively high acceptance rate of non-culmination in adults – although adult data are not the primary focus of the research, they are consistently collected in these studies. Finally, a new line of research has recently focused on non-culmination in some adult languages, highlighting that culmination entailment does not always hold. Indeed, in some cases, the culmination reading is only an implicature that can be canceled within the same sentence (i.e., Mandarin, Hindi, etc.) [5]. Despite this suggestive evidence, experimental work on adult native speakers' interpretation of telic-perfective sentences is rather limited and far from being conclusive.

This study aims to establish whether telic-perfective sentences always entail event culmination or not. Specifically, we are interested in (i) whether native Italian adult speakers accept the 'non-culmination' reading and (ii) under what conditions this reading is accepted (is it equally acceptable across different verb classes?).

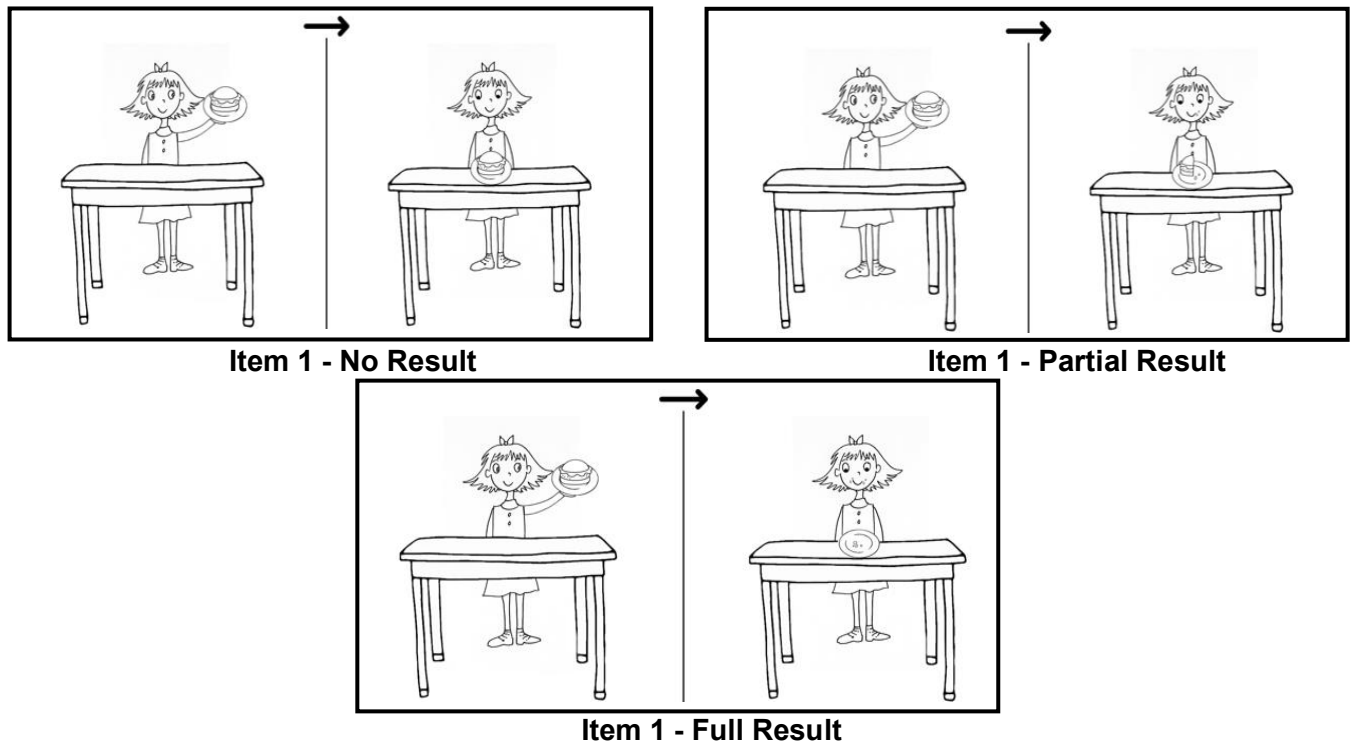
We decided to compare different verb classes since, according to van Hout [4], different verbs may trigger different acceptance rates of 'non-culmination'. Variation across verb types, with different acceptance rates of 'non-culmination', is not expected in a mereological theory of telicity based on quantization, but it seems in line with a Scalar Approach, as the one proposed by Rappaport Hovav, Kennedy, and Levin, among others [6, 7, 8]. In summary, in predicates whose meaning encodes a 'two-point scale' (i.e., to open), culmination is an entailment and cannot be canceled. On the other hand, in predicates whose meaning lexicalize a 'multi-point scale' (i.e., to wipe), culmination is not entailed. The 'culmination reading' is indeed a conversational implicature, hence cancelable. Therefore, based on the Scalar Approach, we expect predicates to behave differently according to the type of scale they lexicalize. CoS_P verbs, lexicalizing a 'two-point scale' should be rejected in a visual context where the event has not culminated since culmination is an entailment and cannot be canceled. On the other hand, CoS_D verbs, lexicalizing a 'multi-point scale', should also be accepted as a description of a 'partial result' event since the 'culmination reading' is a conversational implicature, hence cancellable. As for Incr_T verbs, according to Rappaport Hovav [7], the scale associated with this class of verbs has a different status. Indeed, the 'volume/extent scale' is not directly encoded in the verb but is provided by the verb's object (i.e., VP level). Therefore, we may expect a difference in the acceptance rate of 'non-culmination' for this class compared to the previous ones, in which the scale is lexically encoded in the verb.

To achieve our goals, a group of 60 native Italian speakers (F = 38, Male = 21, Not Binary = 1; age on average = 27.68, SD = 9.43) was recruited through the SONA System and Prolific platforms and administered a truth-value-judgment task. The experimental stimuli consisted of 99 pairs of images: one-third depicted a 'no result' situation, the second-third a 'partial result' situation, and the last a 'full result' situation ('degree_of_event') (see Figure 1). The events, in total, were 33, divided into 3 different verb classes ('verb_type'): punctual change of state verbs (i.e., open the window), durative change of state verbs (i.e., melt the ice cube), and incremental theme verbs (i.e., eat the sandwich). Participants' task was to determine whether the sentence described the rightward picture correctly by pushing a 'yes' or 'no' button on the screen. The crucial condition is the 'non-culminating' situation, namely, the 'partial result' image.

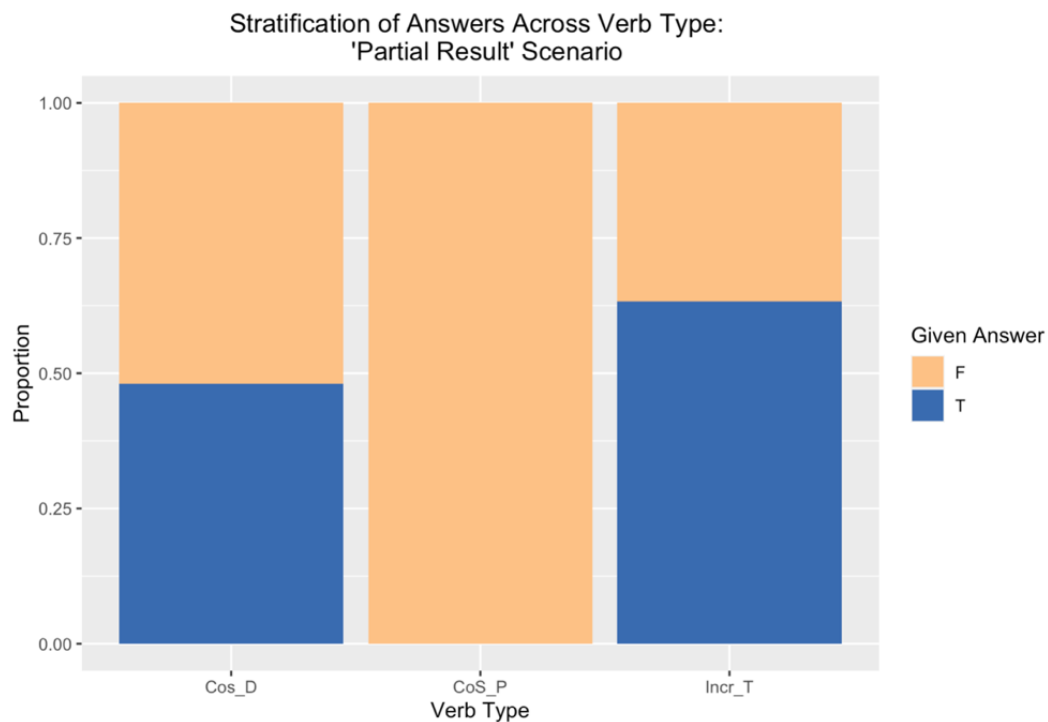
Data were analyzed using a logistic mixed model, with 'given_answer' as dependent variable, 'verb_type' and 'degree_of_event' as factors, and 'age' as a nuisance covariate. Participants' ID codes were included as a random effect. Statistical Analysis revealed main effects of the factors 'verb_type' ($X^2_{(1)} = 39.45$, p-value = < .001) and 'degree_of_event' ($X^2_{(1)} = 735.9$, p-value = < .001), but no significant interaction. Participants' age significantly influenced the type of response ($X^2_{(1)} = 3.85$, p-value = < .04). Based on posthoc analyses on the main effect of 'degree-of-event', different answers were obtained for 'no' vs. 'full result' (p < .0001) but no difference emerged for 'partial' vs. 'full result' (p = 0.4) and 'no' vs. 'partial' (p = 0.99). As expected, participants, on average, did not accept the 'partial result' scenario for CoS_P verbs. On the other hand, a higher degree of acceptance of the 'partial result' scenario was recorded for CoS_D and Incr_T verbs. Data seems compatible with the Scalar Approach since CoS_P verbs were never accepted in the 'partial result' scenario, as they lexicalize a "closed scale". Nevertheless, contrary to the predictions of the Scalar Approach, CoS_D, and Incr_T verbs did not behave differently. One reason for that may be the fact that visual context and sentences were presented in an "out-of-the-blue" fashion. As suggested by previous studies [9], contextual information may influence the acceptance of the 'non-culmination' reading, a possibility that we intend to investigate in a follow-up study by adding contextual background and/or the agent's goal as additional variables.

Figures and Graphs.

- Figure 1. Example of the experimental item 'eat the sandwich' in the 3 scenarios.



- Graph 1. Proportion of 'True' VS 'False' answers across verb type: partial result scenario



References.

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