An experimental pragmatic approach to (Hebrew) compositional telicity

Aviya Hacohen & Lavi Wolf, Ben-Gurion University of the Negev

Traditionally, compositional telicity is taken to be a relatively clear-cut grammatical phenomenon, which involves the syntax-semantics interface: telic predicates – but not atelic ones – carry a culmination inference, which is integral to the predicate itself. However, non-culminating readings of telic predicates are in fact found in a considerable number of languages across the world (see, e.g., Arunachalam & Kothari, 2011). Based on our experimental data from adult Hebrew we propose that the telicity-value of a predicate is ultimately determined through a pragmatic process of conversational implicature. This proposal accounts for the intra- and inter-speaker variation we found.

Hebrew telicity has been discussed in the theoretical literature (e.g. Borer 2005), but this is the first experimental investigation of the topic. We tested knowledge of telicity using a variant of the Truth Value Judgment Task (Crain & Thornton 1998) with 15 Hebrew-speaking adults. Participants were presented with video-clips depicting an **in**complete event, and had to judge whether the accompanying telic or atelic predicate – orally expressed by the experimenter – truthfully described the event or not. There were six experimental-conditions: definite and indefinite singular count, e.g. *litsboa (et ha-)ribua* 'color-in a/the square' (target-judgment for both is 'no'); definite and indefinite plural, e.g. *litsboa (et ha-)ribuim* 'color-in the squares'/'color-in squares' (target-judgment for definite: 'no'; target-judgment for indefinite: 'yes'); definite and indefinite mass, e.g. *litsboa (et ha-)bad* 'color-in the material'/'color-in material' (target-judgments: same as for plural conditions). There were 5 items per condition and 16 fillers.

Our results show that Hebrew speaking adults distinguish telic from atelic predicates, generally rejecting telic predicates as true descriptions of incomplete events and accepting atelic predicates as descriptions of the same events. Specifically, we found that Hebrew-speaking adults distinguish telic from atelic predicates in terms of their culmination inference, with only 24% acceptance of telic predicates as true descriptions of incomplete events versus 90% acceptance of atelic predicates as descriptions of such events. The data further demonstrate that in adult Hebrew, the properties of the direct object – in particular, whether it is a mass or a count noun and/or whether it is definite – play a major role in determining the telicity value of the predicate: predicates with a quantized, or bounded, direct object argument are generally interpreted as being telic, whereas a non-quantized direct object typically results in an atelic reading of the predicate.

Despite this clear distinction, it is also evident that the use of telic predicates as descriptions of incomplete events was in fact licensed at a non-negligible rate (24%). Thus, it appears that adult Hebrew allows for at least some non-culminating readings of telic predicates. Moreover, a significant amount of between-individual and even within-individual variation suggests that pragmatics is at play when it comes to licensing telicity.

We propose a pragmatic explanation, built on the inherent underspecificity of telic predicates such as *litsboa et ha-ribua* 'paint the square'. Though the predicate itself is telic, pragmatic disambiguating processes may affect its readings. The salient pragmatic process (strategy A) would be the following:

(1)   Asserted proposition p: *litsboa et ha-ribua* ('paint the square')
           Alternative q1: *litsboa **et rov** / **xelek** me-haribua* ('paint most / part of the square')
           Alternative q2: *litsboa et **kol** ha-ribua* ('paint the whole square')

When the experimenter asserts p, the participant considers as alternatives q1 and q2. Under the assumption that the experimenter is cooperative, she will assert what is true and maximally informative (Grice 1975). The most informative true interpretation of p is 'paint the whole square' (i.e., q2), since any other alternative (e.g., *paint **part** / **most** of the square*) is entailed by it. For q1, the reason the experimenter does not assert it is that there is a more informative alternative that is true. Since the most informative interpretation of p is q2, and based on Quantity (Grice 1975), 'paint the whole square' is the selected interpretation for 'paint the square'. This would lead to a rejection of telic predicates as true descriptions of incomplete events.

A non-salient pragmatic process (strategy B) would be the following:

(2)   Asserted proposition p: *litsboa et ha-ribua* ('paint the square')
          Alternative q1: *litsboa **et rov** / **xelek** me-haribua* ('paint most / part of the square')
          Alternative q2: *litsboa et **kol** ha-ribua* ('paint the whole square')

When the experimenter asserts p and the participant considers alternative q2, then – under the assumption that the experimenter is cooperative and q2 is relevant and is more informative (as stated above) – since the experimenter did *not* explicitly assert p2, she does not wish the participant to perform q2. In this case, the underspecified p is interpreted as 'paint part of the square'. This would lead to an acceptance of telic predicates as true descriptions of incomplete events.

Strategy A is the salient pragmatic disambiguating strategy since it assumes that the experimenter asserted the underspecified p with the intended meaning q2, the most informative proposition. Conversely, strategy B is non-salient since it assumes that the experimenter refrained from asserting the most informative proposition. The asymmetrical status of the two strategies naturally results in the high rejection rates (90%) of telic predicates as true descriptions of incomplete events and the low acceptance rate (24%).

In sum, we present the findings of an experimental investigation of compositional telicity in Hebrew. Our data reveal considerable rates of non-culminating readings of telic predicates, which are unexpected under the traditional view of telicity. We account for these results by proposing two pragmatic strategies, which differ in terms of their saliency, that give rise to the patterns of performance demonstrated by our adult participants.

References
Arunachalam, S. & Kothari, A. (2011). An experimental study of Hindi and English perfective interpretation. *Journal of South Asian Linguistics*, 4(1), 27-42.
Borer, H. (2005). *The Normal Course of Events (Structuring Sense, vol. II)*. Oxford University Press, New York.
Crain, S. & Thornton, R. (1998). *Investigations in Universal Grammar: A Guide to Experiments on the Acquisition of Syntax and Semantics*. Cambridge, MA: MIT Press.
Grice, H.P. (1975). Logic and conversation. In P. Cole & J. Morgan (eds.), *Syntax and Semantics*, Volume 3, pp. 41-58. New York: Academic Press.