

[Economic Instruction]

**DUTCH VS. ENGLISH AUCTIONS:
A BRIEF CLASSROOM DEMONSTRATION**

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Abstract

I present a brief classroom demonstration of the difference between Dutch and English auctions. The classroom demonstration is appropriate for micro principles as well as intermediate and upper classes in micro, Industrial Organization, and Game Theory.

Short Statement noting professional title and institutional affiliation

I'm currently research scientist (visiting) at the Center for Adaptive Behavior and Cognition of the Max-Planck-Institut fuer Bildungsforschung [education research] in Berlin, Germany,
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Introduction

Auctions have received a lot of attention recently, last but not least through auction sites like eBay which many students visit on a regular basis. Most internet auctions are of the ascending-bid (English) variety (Lucking-Reilly 2000; Lucking-Reilly et al. 2000).¹ Most students therefore tend to be moderately surprised to learn that other auction mechanisms exist and that – under certain conditions - they may well have different revenue predictions (Mester 1988; Agorics 1996). I drive this point home with a brief classroom demonstration that captures the students' attention because the stakes can be considerable for those who win the auction.

The classroom demonstration: Design and Experiences

The goods to be auctioned off are 5 - 7 minute paper presentations that I proffer occasionally to get away from the chalk-and-talk format of courses (Becker & Watts 1996; Ortmann & Scroggins 1995), to bring into the classroom research results that students are likely to find interesting, and to give students a chance to practice their presentation skills.² These auctions are announced in a typical syllabus as follows: You will have the opportunity to earn extra (percentage) points. Now and then, I will auction off presentations of articles. You can bid for presentations. The successful bidder earns the number of points which he or she bid as bonus points; they will be added at the end of the course to the bidder's course total. Depending on the quality of the presentation I shall multiply the bonus by a factor between (and including) 0 and 2.

After a brief description of the article to be presented (i.e., topic, number of pages, degree of difficulty), and after once more making clear that winning the bid is a necessary condition for earning extra points, though not a sufficient one, I offer one extra point for the presentation. With the total number of points to be earned for a course typically being one hundred, this is an attention-grabbing offer for most students. (Obviously, the rewards can be arbitrarily scaled.) If a student accepts that offer, I give the article to the winning bidder, without further comment.³

¹ Roth & Ockenfels (2000), for example, discuss the insertion of second-price auction components through eBay's "proxy bidding systems" and the ramifications of eBay's deadline mechanism.

² One set of articles that I have found particularly useful is Yezer, Goldfarb, & Poppen (1996) and the various articles that these authors reacted to. I ask students to prepare a 5 - 7 minute presentation on the basis of a one-page outline that I copy and distribute to the class. I offer students to look over the outline and to listen to a mock presentation in my office beforehand. So far, each and every student has taken me up on that offer; 9 out of 10 in-class presentations tend to be good to excellent and enrich the class.

³ Rarely is an article taken for one point. Most articles go for 2 - 5 points. The instructor has some influence on the price through her or his description of the article.

If no student accepts the offer, I proceed and offer 2 extra points for the presentation. If a student accepts that offer, I give the article to the winning bidder, without further comment. If no student accepts the offer, I proceed and offer 3 extra points for the presentation. And so on.

Often several bidders jump in at the same time. At that point, I suggest that we go back to the immediately preceding bid to see whether someone is now willing to accept the lower point offer. Typically, that will be the case. If it happens, and it does regularly, I drive home two points. First, I ask students whether the auction I employed was an English auction or a Dutch auction. Most students are initially confused about the right answer and it takes them a while to understand that by increasing the points I offered I was in fact lowering their price and that by going back to my lower offer I was in fact increasing it. Second, I ask students why bidders were accepting a lower number of points once they knew that there were other serious bidders. Most students figure out quickly that an English auction reveals information about bidder valuations while a Dutch auction does not and that this information differential has to do with some bidders' willingness to accept offers they did not accept initially. Depending upon on how far one wants to go, this is a good point of departure for a discussion of independent values, common values, and the importance of bidders' risk characteristics. As a template for that discussion I rely primarily on a most excellent article by Mester (1988; see also Agorics 1996) which I also often auction off. I make sure to stress that the choice of the right auction mechanism can have a significant impact on the surplus that is being split. This point seems to be quite intriguing to students, especially since they just experienced it.

Last but not least, I ask students, when auctioning off presentations early in the semester, about their prediction of bids on similar goods later in the semester. Most students quickly realize that there are countervailing forces at work: On the one hand, there are more students at the end of the semester who believe that their grade would benefit from a good presentation; on the other hand, time is increasingly at a premium as the semester moves into frenetic overdrive.

Conclusion

I have presented one of my strategies to get away from "chalk- and-talk". This brief classroom demonstration of Dutch and English auctions is highly incentive compatible, in my experience draws in students quickly, and enriches and enlivens the course.

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