

TRAGEDY OR TREAT? HALLOWEEN AND THE TRICK-OR-TREATING COMMONS

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Abstract

The “tragedy of the commons” is typically a central topic in high school and college-level economics courses. This note provides a vignette for economics instructors that relates to the tragedy of the commons that, owing to the universality of the experience, may appeal to a wider audience than the traditional examples appearing in many textbooks. The vignette relates to the ages-old Halloween activity of trick-or-treating, particularly when some neighborhood residents choose to avoid the hassle of the activity by providing a “common-pool” candy bowl whose contents are distributed to trick-or-treating kids on an honor system.

Key Words: tragedy of the commons, common pool resources, economic education

JEL Codes: A20, A21, A22

Introduction and Background³

The “tragedy of the commons” is typically a central topic in high school and college-level economics courses. As the popular microeconomics principles text by Mateer and Coppock (2018: 232-233) points out, common ownership of resources that are rival in consumption and non-excludable often become depleted through overuse or over-exploitation. Traditional examples include depletion of fishing grounds in territorial waters, deforestation, and degradation of the environment (i.e., global warming). Mateer and Coppock (2018: 236) add the interesting case of tailgating at football games and music concerts that leads to littered parking lots and stadiums. This example may be especially compelling to students enrolled in major universities or who have the freedom and occasion to attend major concert events. Others may like the more traditional examples.

This note provides a vignette relating to the tragedy of the commons that, owing to the greater universality of the experience, can appeal to a wider audience.⁴ The vignette relates to the ages-old Halloween activity of trick-or-treating, particularly when some neighborhood residents choose to avoid the hassle of the activity by providing a “common-pool” candy bowl, whose contents are distributed to trick-or-treating kids on an honor

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³ The authors are grateful to an anonymous referee for helpful comments on a previous version of this note. The usual caveat applies.

⁴ A search through the detailed table of contents and/or text of recent editions of Arnold (2019), Boyes and Melvin (2015), Case, Fair and Oster (2017), Chiang (2016), Frank, Bernanke, Antonovics and Heffetz (2017), Hubbard and O’Brien (2017), Mankiw (2018), Mateer and Coppock (2018) and O’Sullivan, Sheffrin and Perez (2017) failed to produce the vignette provided in this pedagogical note.

system basis.⁵ The sign depicted at the left of Figure 1 indicates the type of instructions provided by those neighborhood residents who choose to be more passive Halloween participants than their counterparts who actively distribute candy (treats) to the neighborhood's kids.

Figure 1. Common Pool Trick-or-Treating Signage Examples



The other images in Figure 1 are real world examples of the types of candy (treats) displays left unattended on the front porches and stoops of the U.S. on the last night in October each year. In the sections that follow, this phenomenon is developed into a simple vignette for presentation at the high school and college levels. Before turning to the vignette, we provide a brief review of the recent literature describing advancements in the classroom presentation of topics related to market inefficiencies. Following presentation of the vignette, we offer some concluding remarks.

Market Inefficiencies and Econ Ed: Recent Literature

A number of recent studies discuss market inefficiencies in economics principles courses using examples and methods that are likely to be more appealing to students than traditional textbook examples.⁶ Caudill and Mixon (2013), for example, introduce the phenomenon in American culture referred to as the wardrobe malfunction. Largely built around the well-known wardrobe mishap involving Justin Timberlake and Janet Jackson during halftime of the 2004 Super Bowl, students are introduced to the concepts of economic efficiency, property rights assignments, regulation, and liability arrangements. Relatedly, Hammock and Carden (2014) extend the recent trend of integrating movie scenes into classroom discussion by using the 1980s movie classic *Trading Places* to focus on property rights and markets for natural resources.

In the same volume of economic education essays containing Hammock and Carden (2014), Beaulier, Mixon and Caudill (2014) recount a story about Oracle CEO Larry Ellison as a vehicle for in-class presentation of the Coase Theorem. From 2004 through 2011, Ellison attempted to purchase a neighbor's home, because it obstructed his view of San Francisco Bay. More recently, Klein (2015) capitalizes on the popularity of digital music files to help students develop an understanding of important intellectual

⁵ For another example, involving the use of isoquants in describing the production of social order, of how the American tradition of Halloween provides a useful backdrop for economic education, see Mixon, Loftus and Keene (2005).

⁶ This note uses the phrase "market inefficiencies," which is used in the title of the chapter in Mateer and Coppock (2018) that covers externalities, property rights, the Coase Theorem, private goods, public goods, club goods, communal or common-property resources, and the tragedy of the commons, for convenience.

property rights issues in the modern music industry, such as optimal copyright policy and illegal file sharing (piracy). Lastly, Mixon, Asarta and Caudill (2017) revisit consumer music markets in their examination of Patreon, an internet-based service that allows music fans to financially support their favorite independent artists. The artists then provide their music creations to fans via the open access format offered by YouTube. Even though the music available on the YouTube platform exhibits the hallmarks of a public good, fans of the music display a willingness to contribute financially to the creators' livelihoods.

The Tragedy of the Halloween Commons: A Simple Vignette

Our story begins when some of a neighborhood's residents choose to take a passive approach to trick-or-treating by placing a bowl of candy on their front porch or stoop, creating a common-pool as described in Mateer and Coppock (2018). First, the candy in the bowl is *rival in consumption* given that candy taken from the bowl by Lucy, for example, is no longer available for Charlie to take and enjoy. The same goes for the pieces of candy taken by Charlie. Second, the resource represented by the bowl of candy is also *non-excludable* in the sense that neither Lucy nor Charlie can exclude (legally) the other (or others) from accessing the candy in the bowl. Thus, the criteria for a communal good are met.

Figure 2. The Tragedy of the Trick-or-Treating Commons



This Halloween vignette differs from traditional examples in that the homeowners may want the contents of the bowl to be “depleted” by the end of the evening. In this case, the tragedy of the commons relates to how much of the candy is taken and enjoyed by a given trick-or-treating kid and how quickly (i.e., at what point in the evening) the contents of the candy bowl are depleted by the collective group of trick-or-treating kids.⁷ To explore these aspects of the story, consider the satisfaction Lucy obtains from consumption of the candy from such a communal bowl. Suppose Lucy receives a marginal benefit (MB) of 10¢ from the first piece of candy she takes from the bowl, 8¢ from the second, 6¢ from the third, and so on. Thus, when Lucy arrives on the porch or stoop, she will continue to take candy from the communal bowl until the MB to her of the last piece she takes is equal to 0¢. In our example, this occurs after she takes six pieces of candy. If other neighborhood kids follow suit, the bowl will be depleted at some point much earlier in the evening than would have occurred if Lucy and the other neighborhood kids followed the residents'

⁷ The vignette describing how quickly a shared milkshake is consumed in Frank et al. (2017) is most similar to that presented here.

instruction to “take just one.”⁸ After this point, those neighborhood kids who venture onto the porch or stoop will find that the communal bowl empty. This is depicted in Figure 2.

Next consider Charlie, one of the neighborhood kids who arrives after the bowl has been emptied by Lucy and the others. He will be unable to collect any candy from this particular home. If we assume his preferences are identical to Lucy’s, we can see how Lucy’s (and the others’) actions are not *socially* optimal. That is, had Lucy left a piece of candy for Charlie to collect, *Lucy’s* satisfaction would have been diminished by 2ϕ . In doing so, however, Charlie would have collected a piece of candy yielding a MB to *him* of 10ϕ . This process, repeated over other units of candy and across more of the children in the neighborhood, creates more social welfare than was produced in the tragedy of the commons case. Had the homeowner in this vignette not been away from home on Halloween, or, if home, had chosen to participate, a similar outcome could have been facilitated by limiting the access of each child to only a single piece of the candy. Although not a feature of the vignette presented here, this potential conclusion to the story highlights the difference between the “market” outcome of quick depletion and dissipation of net benefits and the socially optimal outcome of maximizing total net benefits by limiting access.

Concluding Comments

This note provides a vignette of the tragedy of the commons related to the Halloween activity of trick-or-treating. We described how some of a neighborhood’s residents choose to avoid what they view as the hassle of the activity by providing a “common-pool” candy bowl. Distributing the contents to trick-or-treating kids on an honor system basis depletes the candy bowl more rapidly than would be realized in a traditional trick-or-treating context. We argue that the universality of the experience described in our vignette appeals to a wider audience of economics principles students than traditional examples that appear in common principles texts.

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⁸ Again, either occurrence likely leads to depletion in this particular vignette.

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