

Crimes and Punishments

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A (fine) puzzle

John was driving 150 km/h. The law says you cannot exceed 130 km/h, so John got fined. He got fined twice. “Why twice?” Because there were two speed detection devices—one at km 50 and one at km 100—so they caught him twice. “What if the devices were closer to each other, at km 50 and at km 60?” Same story: if they catch you twice, you get fined twice. “What if there was a third device in between, at km 55?” Three devices, three measurements, three infractions—hence three fines. “But they could measure any number of times in between. What if they placed a device every kilometer?” They would fine you for each time a distinct device would measure an infraction. “But that is absurd. By that pattern, I could be fined uncountably many times for speed driving a single meter.”¹

Speed limits and other prohibitions

Obviously, the “pattern” is a mathematical abstraction, and no one will ever risk bankruptcy for a brief infringement of the Traffic Code. But John’s lawyer has a point. How long should the infringement last in order for two or more fines to be applicable? A fine is a punishment in which we incur if we perform a forbidden action—a crime—and there is a strong intuition to the effect that crimes and punishments should go hand in hand: every criminal act ought to be matched by a corresponding punishment, and every punishment ought to reflect a criminal act. We know how to count punishments, especially if they come in the form of a fine. But how do we count crimes?

¹ The puzzle is based on a (true) story reported in Ferraris (2004).

Consider the following suggestion. A crime is a criminal *act*, and we know how to count acts. There may be disagreement on how exactly this should be done, for there is no one-to-one correspondence between the words we use to pick out actions and the actions that we pick out. (Anscombe and Davidson famously argued that, say, Brutus's killing of Caesar and his stabbing of Caesar are one and the same action under two different descriptions; Goldman and Kim argued that they are two different actions.²) But never mind that. A responsible philosopher should better have some views on this important matter; she should have some criteria for counting actions, at least actions of a kind. Hence, to the extent that our question is a philosophical one, every responsible philosopher should be able to answer it, some way or another. If it is forbidden to ϕ , and if we know how to count an agent's ϕ ings, then we know how many times the agent should be punished for having ϕ ed.

Unfortunately, the suggestion falls short of a general solution to our problem. Our concept of an action is a mixed bag, and it is by no means clear that all kinds of action can be associated with counting criteria of the right sort. We can count stabbings and killings just as we count apples and fruits. But just as we cannot count waters, but only portions of water, we cannot count speed drivings, but only fractions thereof. Thus, if there is a law that says

- (1) Do not kill.

we know exactly how to quantify the relevant crimes: we count the killings. Since every killing is unlawful, we have thereby counted the crimes. Perhaps there is also a law that says:

- (2) Do not stab.

Then again we know how to quantify the relevant crimes: we just count the stabbings. When it comes to a case such as Brutus's, we may disagree on the overall number of crimes he committed, since we may disagree on whether his stabbing of Caesar is one and the same action as his killing of Caesar, but never mind: nobody says that distinct crimes should be matched by distinct punishments. (For example, a dualist may still maintain that Brutus should only be punished once, since one crime—the killing—was performed *by* performing the other—the stabbing.³) By contrast, if there is a law that says

² See Davidson (1969), Anscombe (1979), Kim (1969), and Goldman (1971).

³ Compare: A dualist may insist that a thing and its matter are distinct while maintaining that when you buy a statue you *ipso facto* buy the clay, since the former is made *of* the latter.

- (3) Do not drive faster than 130 km/h.

then we are at loss. The prohibition does not specify the relevant countable units. If we go above the speed limit, we know that we are acting criminally; but we are completely in the dark as to the number of crimes we are committing.

All of this suggests that prohibitions—and hence the relationship between crimes and punishments—are sensitive to the types of action they are directed to, and to the way those actions are characterized. It is one thing to prohibit a killing, or a stabbing; quite another to prohibit continuous actions such as speed driving, smoking, or playing on the turf—actions which, as Aristotle put it, seem to be engaged in for their own sake⁴ and whose canonical descriptions involve expressions that behave like mass terms. In fact, it is customary to classify actions according to a typology that is more fine-grained than this. The standard typology, rooted in the works of Ryle, Kenny, and Vendler,⁵ distinguishes at least four different types:

- (a) Activities (e.g., John walked uphill)
- (b) Accomplishments (e.g., John climbed the mountain)
- (c) Achievements (e.g., John reached the top)
- (d) States (e.g., John knew the way up)

The characteristic feature of an activity, or process, is that it is homogeneous (its sub-actions satisfy the same description as the activity itself) and has no natural finishing point or culmination; by contrast, an accomplishment may have a culmination (here: the reaching of the mountain's top) but is never homogeneous; an achievement *is* a culminating event (and is therefore always instantaneous); and a state is homogeneous and may last over time, but it makes no sense to ask how long it took or whether it culminated. It is also customary to illustrate these distinctions with the help of aspectual considerations, the basic idea being that different *verbs* correspond to different types of actions. Thus, verbs with no continuous form ('know') correspond to states; verbs with continuous form and for which the present continuous entails the past perfect ('John is walking uphill' entails 'John walked uphill') correspond to activities; and, lastly, verbs for which the present continuous entails the negation of the past perfect ('John is climbing the mountain' entails 'John has not yet climbed the mountain', provided he never did that before) correspond

⁴ See *Metaphysics* IX.6.

⁵ See Ryle (1949, Ch. 5), Vendler (1957) and Kenny (1963, Ch. 8).

to accomplishments and achievements, sometimes grouped together as “performances”.⁶

Now, it is not entirely clear whether this four-fold typology is to be regarded as classifying events in the world (i.e., action types) or pieces of language (action verbs),⁷ but in the present context this worry is only partly relevant: precisely insofar as prohibitions are speech acts, linguistic distinctions are just as crucial as ontological ones. The challenge, rather, is to see how such discriminations interact with our ordinary understanding of the structure of prohibitions. Let’s assume the standard typology is at least approximately correct. How does our notion of a *criminal* action—and the corresponding notion of a punishment—depend on whether the prohibited action is an activity, an accomplishment, an achievement, or a state?

Forbidden states?

Let us start from the end. Can states be prohibited at all? Surely, in everyday-life contexts we often meet prohibitions that seem to be directed toward states, as in

- (4) It is forbidden to be asleep during the lesson.

We have no problem understanding these prohibitions. However, it seems to us that in cases such as this, the prohibition does not concern the state itself, but rather some related action. Although one may *say* ‘do not be in state *s*’, often what is meant is best construed as a prohibition to act in a way that *results in* state *s*. For instance, (4) is naturally construed as shorthand for (4’):

- (4’) It is forbidden to fall asleep (and keep on sleeping) during the lesson.

Other times, what is forbidden is acting in a way that *results from* the relevant state. For instance, (5) is naturally construed as meaning (5’):

- (5) Don’t be selfish.
(5’) Do not act (or think) like a selfish person.

Some cases are slightly more dubious. When we read

- (6) Standing in front of this door is strictly prohibited.

⁶ For a systematic review, and further developments, see e.g. Parsons (1990, ch. 9) and Rothstein (2004).

⁷ See e.g. Gill (1993) against Mourelatos (1978).

there seems to be no reference whatsoever to an action leading to the state of standing in front of the door, or to an action that results from that state. However, it is not even clear that standing in front of a door is a genuine state, as opposed to a monotonous (or “static”) activity. Indeed, if we apply the Kenny test, ‘stand’ does not qualify as a state verb, since it admits of the continuous form (unlike ‘know’). When a *bona fide* state is at issue, the very idea of prohibiting it appears suspicious, if intelligible at all. Compare:

(7) It is forbidden to know the shortest way to the top of the mountain.

Our hypothesis is that no prohibition is ever directed toward a state. For this reason, we will set states aside in what follows, assuming that all prohibitions are ultimately directed towards genuine *acts* of some sort.

Forbidden achievements

In fact, prohibiting an achievement is partly problematic, too. If we say

(8) No one is allowed to reach the top of the mountain.

the scope of our prohibition is clear enough: you may walk uphill as far as you like, but you may not go “all the way”. The same applies to other typical achievements, as in

(9) Do not cross the line.

One may get as close to the line as one likes, but one may not cross it. To the extent that an achievement is the culmination of an activity, forbidding an achievement amounts to forbidding the completion of that activity. Since completions are instantaneous, the relevant counting criterion is straightforward:

(C_{ach}) If ϕ ing is an achievement, the number of times an agent x breaches a prohibition to ϕ is the number of time instants t such that ‘ x ϕ ed at t ’ is true.

However, already Vendler included among the category of achievements also events such as finding something, recognizing someone, and the like. Arguably, such events are instantaneous, too, and they can be counted accordingly. Yet it would seem that they cannot be meaningfully prohibited. Consider:

(10) No one is allowed to find the money on the floor.

The reason, we think, is that in cases such as this the achievement is not properly characterized as the culmination of an activity. Culminations are *depend-*

ent events: their occurrence requires the occurrence of a previous activity of which they are, literally, the temporal boundary (reaching the top requires walking uphill; crossing the line requires approaching it). By contrast, in order to find something, x , one need not be engaged in any particular activity that will culminate in the finding of x ; one may just find x —suddenly, so to say, and perhaps accidentally—regardless of whatever one was doing before. In other words, finding something, as also noticing or recognizing something or someone, are *independent* achievements that do not mark the culmination or temporal boundary of any prior activity. And it seems that with respect to such independent achievements prohibitions do not make sense. Prohibitions, we submit, apply exclusively to dependent achievements, and insofar as such events are instantaneous, the counting criterion in (C_{ach}) translates directly into a criterion for determining the number of times an agent should be punished for violating a corresponding prohibition. This number, n , is neither more nor less than the number of times the agent brings about an achievement of the relevant sort.⁸

Forbidding accomplishments

So we claim, first, that states cannot be properly forbidden and, second, that achievements can be forbidden (and punished) only if they are of the dependent sort, as per criterion (C_{ach}). Things begin to get puzzling when we move to the examination of prohibitions and punishments directed towards the two remaining sorts of action, namely, accomplishments and activities. Contrary to

⁸ One may object that dependent achievements are temporally extended (albeit shortly so) rather than truly instantaneous, since we may report them using a gerundive form:

- (a) John was reaching the top.
- (b) John was crossing the line.
- (c) John was touching the painting.

We would reply that such gerundives do not report achievements *strictu sensu*. Rather, they have the effect of shifting the object of discourse from the achievement itself—which as such is truly instantaneous—to the activity on which it depends, in particular to its last phase, right before the culmination. Thus, for example, (a) says that John was about to complete a certain activity (walking uphill) and to accomplish something (climbing the mountain). Likewise, (b) says that John was about to cross the line. Cases such as (c) are more complex, because of an underlying ambiguity. On one reading, again, John was about to touch the painting. On a different reading, he was holding his finger on the painting. But this alternative reading does not refer to an achievement; it refers to a monotonous activity, so our general point is not affected.

achievements, actions of these sorts are not instantaneous: they always require a certain amount of time to be performed, and this introduces serious complications.

Consider accomplishments, such as John's climbing of a mountain. As we mentioned, there are two important features that characterize actions of this sort and distinguish them from activities: (i) they are not homogeneous (no proper part of John's climbing of the mountain is itself a climbing of the mountain by John) and (ii) they are topologically "closed", i.e., they include their own culminating achievements (John's climbing of the mountain includes his reaching of the top). (Activities, by contrast, are homogeneous and topologically "open"). Because of these features, it would seem that accomplishments, too, could be associated with a straightforward counting principle. Specifically, (i) suggests the following principle:

- (C_{acc}) If ϕ ing is an accomplishment, the number of times an agent x breaches a prohibition to ϕ is the number of time intervals t such that ' x ϕ ed over t ' is true.

whereas (ii) suggests the following:

- (C_{acc'}) If ϕ ing is an accomplishment, the number of times an agent x breaches a prohibition to ϕ is the number of time instants t such that ' x cul(ϕ)ed at t ' is true, where a cul(ϕ)ing is any achievement that qualifies as a culmination of a ϕ ing.

These two principles are equivalent. For instance, if the law says

- (11) Climbing Mount Everest is forbidden.

we can count the number of times an agent breaches the law by counting the number of intervals corresponding to the duration of a full climbing of Mount Everest or, equivalently, by counting the number of times the agent has reached the top of Mount Everest by climbing. Likewise, and more plausibly, we can count the number of times an agent breaks a prohibition such as

- (12) Crossing the street is against the law.

by counting the intervals corresponding to the duration of a full crossing of the street or, equivalently, the number of times the agent has reached the other side of the street by going right through it. The same sort of consideration applies to cases such as (1) and (2), which may also be classified as accomplishments. However, closer inspection indicates that neither formulation delivers reasonable results in all cases.

Consider (12) and suppose John walks across the street up to a few feet from the opposite side and then turns around. Both (C_{acc}) and (C_{acc}') will deliver the same verdict: John has not breached the prohibition, hence he should not be punished. But this seems ludicrous. Surely any charitable reading of (12) suggests that John is liable to be punished, regardless of the fact that he fell short of a full crossing of the street. Consider also:

(13) Thou shall not eat any apple from this tree.

Suppose Adam and Eve spent the whole day eating from the forbidden tree, leaving all the apple cores on the ground. Surely they could hardly plea innocent by arguing that they have not eaten any apple entirely. “You told us not to eat any apples from this tree, and we haven’t; we have only eaten apple parts—and we mean proper parts.” In short: (C_{acc}) and (C_{acc}') appear to be too strict. A prohibition is a speech act, and every speech act must be interpreted against the background of shared knowledge and presuppositions, and with Gricean wisdom. Strictly speaking, (12), (13), and the like say that we are not allowed to *accomplish* something, ϕ (cross a street, eat an apple), but what is really meant is that we are not allowed to engage in any activity that may *turn into* a ϕ ing (activities such as walking across a certain street or eating stuff from a certain tree). In this sense, both John and the Eden dwellers *are* culpable of having broken the prohibition: even though they have not accomplished the forbidden actions, they have engaged in the underlying criminal activities.

Shall we say that the problem here is merely pragmatic? Strictly speaking, (C_{acc}) and (C_{acc}') are correct. It’s just that we often phrase a prohibition in terms of an accomplishment when in fact we intend to prohibit any activity that may turn into those accomplishments. If so, however, we have to be clear about our criteria for counting activities. More precisely, we have to provide precise criteria for determining how many times an agent may be said to have breached a prohibition to engage in a criminal activity. How many times did John breach the prohibition to cross the street, understood as the activity to walk across it? How many times did Adam and Eve breach the commandment, charitably construed as the prohibition to eat from the forbidden tree?

Activities

Like accomplishments, activities take time. Unlike accomplishments, however, activities are homogeneous and do not include a culmination point. If it

is true that John is (or ‘was’, or ‘has been’) walking across the street for one minute, then it is true that he is (was, has been) walking across the street for every time stretch within that minute. Moreover, at each moment during that minute it is correct to say both that John *is* walking across the street and that he *has been* walking across the street: the time stretch of an activity is inherently indefinite and it is in this sense that an activity is topologically open.

Now, there is no question that activities can be prohibited. Our original example in (3) is a case in point, but there are plenty—for instance:

- (14) Walking uphill on this mountain is forbidden.
- (15) Do not play in the garden.
- (16) Smoking is against the law.

Prohibitions such as these are clear to understand, and we meet them daily. However, precisely because activities are homogeneous and open, neither (C_{acc}) nor (C_{acc}') provides us with a criterion for saying how many times we may properly be said to infringe an activity. What alternatives are there? Two options suggest themselves, but both have problems.

The first option relies on the feature of homogeneity. Question: “How many times should I be punished for having ϕ ed?” Answer: “As many times as you have been ϕ ing”. More precisely:

- (C_{act}) If ϕ ing is an activity, the number of times an agent x breaches a prohibition to ϕ is the number of times t such that ‘ x is ϕ ing at/over t ’ is true.

Here it doesn’t matter whether t is a time instant or a time interval, for we have just seen that the homogeneity property holds with respect to both. It is true that not every proper part of an activity such as walking is itself a walking: there is a granularity issue here, and we may want to say that one cannot be walking for just a second.⁹ Moreover, we have said that no genuine activity can be instantaneous, so obviously one cannot be walking for an instant. Still, we have also seen that, given any suitable interval of time, if an agent is walking during that interval then, for every subinterval and every instant within that interval, it is also true that the agent is (was, has been) walking over/at that subinterval/instant. This is what homogeneity amounts to, in the relevant sense.

⁹ See, for instance, Simons (1987: 139), who takes into account cases of partial and relative “dissectivity”.

Unfortunately, precisely because activities take time, all of this implies that (C_{act}) is hopelessly prolific. This is the gist of our opening puzzle. Let ϕ be an activity verb. If we assume that the time series is dense (if not continuous), it immediately follows from (C_{act}) that whenever we breach a prohibition to ϕ , we breach it infinitely (if not uncountably) many times. And even if time were not dense, it would follow that we breach the prohibition a vast number of times, one for each instant or period within the maximal interval during which we may be said to have been ϕ ing. This is preposterous.

The second strategy exploits the idea that although activities are topologically open, they do come to an end. People do not keep walking forever; it's just that the end of their walk is not part of their walk (whereas the end of a mountain climbing is part of the climbing). Now, when we talk about a person's walking, we often—if not typically—have in mind the whole thing, i.e., the action that extends over the maximal period of time t such that it is true that the agent has been walking over t . Accordingly, if there is a law that prohibits a person from walking (in a certain place), it is plausible to suppose that it is the number of her “maximal walks” that matters. More generally, the following principle suggests itself:

(C_{act}') If ϕ ing is an activity, the number of times an agent x breaches a prohibition to ϕ is the number of maximally connected intervals t such that ‘ x is ϕ ing over t ’ is true.

This principle avoids the absurd prolificness of (C_{act}) . However, it suffers from the opposite defect: it is too coarse grained. Consider John and Tom. Both drove 150 kilometers on the same highway, and both infringed the speed limit of 130 km/h. However, John did that by driving 150 km/h for (almost) an hour, i.e., for (almost) the entire ride, whereas Tom only went over the limit for a minute, i.e., for 2.5 kilometers, and otherwise drove slowly. According to (C_{act}') , both John and Tom infringed the law once and are, therefore, equally liable to punishment. But surely that is unfair. Worse: suppose Tom went over the limit twice—once around km 50 and once around km 100. Then there are two maximally connected intervals over which it is true that Tom has been driving faster than 130 km/h, hence he should be punished twice, whereas John's constantly fast driving would be enough to earn him a single fine. Even worse, consider what happened next, as John and Tom left the highway and drove through a large, highly populated town. The speed limit is 50 km/h. John drove through the whole town at 100km/h. Tom drives slowly, but closer inspection reveals that he actually exceeded the speed lim-

its a few times. If the police relied on (C_{act} '), John would get one ticket whereas Tom would get a whole bunch of them. Clearly this is not how things should go.¹⁰

Indeed, both (C_{act}) and (C_{act} ') have undesired consequences with respect to our early criterion for evaluating the breaching of prohibitions directed toward accomplishments. We have seen that (C_{acc}) and (C_{acc} ') are too strict: often, we phrase a prohibition in terms of an accomplishment with the intention of prohibiting any activity that may turn into an accomplishment of that sort. But then the limits of both (C_{act}) and (C_{act} ') affect those prohibitions, too. Consider Adam and Eve. How many times did they breach the commandment, understood as the prohibition to eat stuff from the forbidden tree? If we rely on (C_{act}), the answer is: infinitely (or very many) times, even if they just had a few bites from a single apple. If we rely on (C_{act} '), the answer is: once, even if they went on eating (leaving the apple cores) for days.

Crimes and punishments

We know how things work in practice. John got fined twice because he was caught twice: he drove past two speed detection devices at 150km/h. Had there been more devices, he would have been fined more times. The number of fines is determined by the number of measurements, which in turn is determined by the number of detection devices, and the latter is determined by pragmatic considerations. The police *could* put a device every meter, but they don't: it would be too harsh. They *could* put just one device on the entire highway, but they don't: that would be too lenient. So they put a few, based on contextual considerations.¹¹ In practice, it is contextual and pragmatic factors (implicit, if not explicit) that determine how many times we infringe a law by engaging in some illicit activity. In practice, when it comes to temporally extended actions, it is contextual and pragmatic considerations that determine what counts as a relevant "unit" the performance of which deserves to be punished. So although (C_{ach}) may well be regarded as the correct counting

¹⁰ If we counted the times we infringe the law by the times we *end* doing something, we would still have the very same problem, plus some further implausibility. It's not just that cops do not wait us until we slow down in order to fine us; insofar as they ask us to stop, they would actually *force* us to breach the law. (There are exceptions, though: consider Keanu Reeves in the movie *Speed*.)

¹¹ Sometimes such pragmatic considerations are explicitly formalized: check what your state law says about leaving your car parked when the money in the meter is finished.

criterion for certain instantaneous achievements, and (C_{acc}) or (C_{acc}') correct criteria for counting accomplishments *structu sensu*, when it comes to extended actions (activities or accomplishments broadly understood) the correct counting criterion is something along the following lines:

- (C_{ext}) If ϕ ing is an extended action, the number of times an agent x breaches a prohibition to ϕ is the maximum number of pairwise disjoint connected intervals t —of some contextually determined length—such that ‘ x is ϕ ing over t ’ is true.

If ϕ ing is an activity, the truth of ‘ x is ϕ ing over t ’ implies that of ‘ x ϕ ed over t ’, and that’s the whole story. If ϕ ing is an accomplishment, the truth of ‘ x is ϕ ing over t ’ does not imply that of ‘ x ϕ ed over t ’, and perhaps there is or will never be a longer interval t' that would fit the bill. This is the infamous “imperfective paradox”.¹² Yet insofar as accomplishment verbs admit of the present continuous, the prohibition applies as well.¹³

Now, contextual discriminations need not be entirely arbitrary. They may, in fact, be the best expression to our rational views. Nonetheless, they are conventional. There is no fact of the matter that justifies their being intrinsically “correct”. They are, therefore, good (at least in principle) if we are interested in how many times an agent is liable of punishment, given the community to which she belongs. But if we are interested in quantifying her wrong doings—her crimes—we have reasons to feel bewildered. We can count some of her criminal achievements (the dependent ones) and we can count some of her criminal accomplishments (understood *strictu sensu*), but every other crime seems to be up for grabs.

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¹² See Dowty (1979: 133ff).

¹³ (C_{ext}) is just an example. In some cases, the relevant units may be defined by reference to other criteria than the temporal length of the agent’s ϕ ings. For instance, if the prohibition concern the building of houses, then what matters is not the amount of time during which the agent engages in building a house but, rather, how much of a house the agent builds over time.

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