Moral Laws, Laws of Nature and Dispositions

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ORIGINAL SCIENTIFIC ARTICLE / RECEIVED: 04–05–14 ACCEPTED: 22–08–14

ABSTRACT: It appears that light may be thrown on the nature of moral principles if they are construed as moral laws analogous to ceteris-paribus laws of nature. Luke Robinson objects that the analogy either cannot explain how moral principles are necessary or cannot explain how obligations can be pro-tanto; and that a dispositional account of moral obligation has explanatory superiority over one in terms of moral laws. I outline the analogy, construing laws of nature as necessary relationships after the fashion of William Kneale and Karl Popper. I then show that Robinson’s objections are mistaken and that if the difference between a dispositional account and a law account is not merely verbal, then it is the law account that is superior. I also dispel the common confusion between the necessity of laws and the existence of forces.

KEYWORDS: Ceteris paribus, disposition, explanation, force, law of nature, moral law, necessity, pro tanto.

1. Introduction

A pro-tanto obligation is one that has weight but which may, in principle, be outweighed by conflicting obligations. When a pro-tanto obligation is outweighed, it nevertheless retains its weight, so that the failure to fulfill it leaves an unsatisfied moral demand for which is owed at least an acknowledgement and, normally, some form of compensation (Thomson 1990, 91–96, 98–103). Thus, a pro-tanto obligation is a real obligation that still exists even when it is outweighed. It is therefore essential not to confuse a pro-tanto obligation with a merely apparent obligation, since the latter is not a real obligation at all. Such confusion is committed by W. D. Ross (1930) who uses the term ‘prima facie obligation’ sometimes to talk of pro-tanto obligations and sometimes to talk of merely apparent obligations (see Searle 1980, 238–50). I eschew all talk of ‘prima facie obligations.’ Morality requires that an agent perform a pro-tanto obligation if it is not outweighed by another obliga-
tion. A pro-tanto obligation contrasts with an absolute obligation, that is, an obligation that could never be outweighed. I assume here the commonly accepted view that no obligations are absolute and thus that all obligations are pro-tanto (for relevant discussion, see my 2014). Throughout, I use ‘obligation’ to mean moral obligation, ‘is obliged’ to mean has an obligation, and ‘ought’ to mean is required by morality. I assume that morality is consistent and that this precludes morality requiring an agent to perform two actions when he is unable to perform both.

Ross (1930, 94) draws an analogy between pro-tanto obligations and physical forces. Paul Pietroski (1993) develops the point by assimilating moral generalisations to statements of laws of nature, arguing that a moral generalisation says that any person in a specific kind of circumstance acquires a pro-tanto obligation, as in,

\[(P1)\] anyone who promises has a pro-tanto obligation to do what is promised.

Since morality requires the performance of pro-tanto obligations that are not outweighed by other obligations, \((P1)\) entails:

\[(P2)\] anyone who promises ought to do what is promised, so long as the obligation to do what is promised is not outweighed by a conflicting obligation.

We could rephrase \((P2)\) as:

\[(P3)\] ceteris paribus, anyone who promises ought to do what is promised.

Pietroski argues for the similarities between statements like \((P3)\) and ceteris-paribus statements of laws in the special sciences, such as biology and economics; for example, the law-statement that, ceteris paribus, an increase in the supply of a product will be followed by a fall in its price. He says that the ‘ceteris paribus’ qualification indicates that a law-statement has exceptions which can be explained in terms of an interference (1993: 495–96; see also Pietroski and Rey 1995, section 2.1).

Detailed exploration of the proposed analogy between moral principles and laws of nature promises to illuminate both, or at least the former; but I leave that for another occasion. My concern here is to rebut two objections to the analogy between moral principles and laws of nature which have been raised by Luke Robinson (2008, 2011, 2013, 2014). First, Robinson argues that, if statements of moral principles are construed as analogous to statements of laws of nature, either they are not necessary or they cannot help to explain how obligations could be pro-tanto. Second, he contends that an account of pro-tanto obligations in terms of dispositions has explanatory su-
periority over an account in terms of ceteris-paribus moral laws. I argue that Robinson's objections are mistaken. Throughout I clearly distinguish laws from law-statements, the former being what make the latter true (if they are true).

In section 2, I briefly re-state and clarify the analogy between moral principles and laws of nature. In section 3, I outline Robinson's first objection and I show that it is unsound. I also distinguish the necessity of laws from forces. In section 4, I recount Robinson's second objection and I show that it is erroneous. I also argue that, if the difference between a dispositional account and a law account is not merely verbal, then a law account has explanatory superiority. In section 5, I conclude.

2. Moral and Physical Laws

It has been argued that a law of nature is a necessary relationship that may be expressed by a universal material-conditional preceded by a necessity operator (Carroll 1994; Kneale 1949: chapter 2; Popper 1959, appendix *x). Thus, a statement of a law of nature can be represented by means of the following schema:

(L) necessarily, anything, \( x \), is such that, if \( x \) is \( G \), then \( x \) is \( H \).

The necessity operator in (L) implies that a statement of a law of nature has counterfactual instances. It is usually taken to express a special form of natural or physical necessity. However, following a suggestion of Saul Kripke (1980: final paragraph), we may prefer to take it as expressing metaphysical necessity. For example, supposing that Newton's Laws are laws of nature, Newton's Second Law can be expressed in a statement of the form (L) as follows:

(a) necessarily, every body, \( x \), is such that, if \( x \) is subject to a resultant force, then \( x \) has an acceleration proportional to the magnitude of the resultant force in the direction of the resultant force.\(^1\)

Although it is a matter of some controversy (see, for example, Earman and Roberts 1999, Earman et al. 2002, Lange 2002, Pietroski 1993, Pietroski and Rey 1995), it is generally held that in addition to strict laws of nature, which admit of no exceptions, which exemplify the form (L), there are also ceteris-paribus laws of nature which admit an indefinite number of

\(^1\) Strictly speaking, it is not (a) that exemplifies the form (L), but an instantiation of (a), in which the expression of generality, 'a resultant force,' and the two occurrences of its bound variable, 'the resultant force,' are replaced by a singular term designating of the resultant force acting in a particular situation. We can ignore that nicety here.
exceptions, not specifiable in advance. A ceteris-paribus law of nature can be represented by means of the following schema:

\[(L)\] necessarily, anything, \(x\), is such that, if \(x\) is \(G\) and other things are equal, then \(x\) is \(H\).

Thus, supposing that Boyle's Law is a law of nature, it can be represented as a statement of form \((L)\) as follows:

\[(b)\] necessarily, anything, \(x\), is such that, if \(x\) is a gas and \(x\) is held at a constant temperature and other things are equal, the pressure exerted by \(x\) varies inversely with the volume of \(x\).

Interfering circumstances that can disturb the inverse relationship between pressure and volume include forces exerted by gas molecules upon each other, the molecules' sizes, their adhesion to the container walls, the container's shape, and many others (Lange 2002, 411).

The form \((L)\) is a more specific form than \((L)\), in which '\(G\)' in \((L)\) is supplanted by '\(G\) and other things are equal.' Some true statements of forms \((L)\) or \((L)\) do not express laws of nature; but I will not attempt to articulate the features which differentiate statements of laws of nature from all other statements of those forms. The phrase 'other things are equal' is an idiom which can mean different things with respect to different ceteris-paribus laws. Perhaps the most generally applicable formulation of its sense is along these lines: the effects of any interfering conditions are ignored or abstracted from (Pi-etroski and Rey 1995: sections 2.1 and 3.2). However, in some cases it may be rendered satisfactorily by: there is no interfering condition. That is the sense in which the expression will be understood here, since, when moral law-statements exemplify the form \((L)\), the ceteris-paribus clause may be interpreted in that sense.

An important part of morality is a set of moral principles or laws each of which connects a particular type of circumstance with a particular type of obligation. Statements of such laws include:

- one is obliged to keep one’s promises;
- one is obliged to pay one’s debts;
- one is obliged not to kill an innocent person.

For example, the first law-statement connects a person’s making a promise with that person’s obligation to keep the promise made. However, each of the statements has obligation-voiding exceptions. For example, if Tom promised to take Geri to the ball, then Tom has an obligation to take Geri to the ball; but not if Tom’s promise to Geri had been coerced or elicited by fraud or if it would be immoral for Tom to take Geri to the ball (Thomson 1990:}
310–16); and perhaps there are other obligation-voiding exceptions. However, when the circumstances are not exceptional, their connection with the obligation is necessary. This can be seen from the fact that a statement of a moral law has counterfactual instances. For example, if Tom had not promised to take Geri to the ball (and the circumstances were relevantly similar), he would not have had the obligation to take Geri to the ball; and if it had been Spike, not Tom, who had promised to take Geri to the ball, then it would have been Spike who had the obligation to take Geri to the ball (assuming the circumstances were not exceptional). Thus, the moral-law statement, ‘one is obliged to keep one’s promises’ is more accurately expressed in the following statement of form (L’):

(i) necessarily, any person, x, is such that, if x promises to φ, and there is no interfering obligation-voiding condition, then x has an obligation to φ.

Similar renditions can be given for the other moral-law statements in our bulleted list.

In addition to moral laws connecting circumstances with obligations, there are also moral laws connecting obligations to particular facts about what an agent ought to do. A statement of such a law is:

- one ought to fulfil one’s obligations

which connects an agent’s having a particular obligation to φ with the particular fact that she ought to φ. Some philosophers may be squeamish about according such a statement the title of ‘moral law-statement’ because it seems to be ‘analytic.’ However, that would be to assume that a distinction between analytic and synthetic propositions is tenable; and that is not an assumption that I wish to make. Like the statements in our previous list, this moral law-statement has exceptions. These obligation-interfering exceptions are circumstances in which a person’s having an obligation fails to generate a corresponding fact about what that person ought to do, because the person has a conflicting obligation which outweighs it. For example, if Tom promised to take Geri to the ball, and also promised to pick up Spike from the hospital, and the circumstances of the two promises were not obligation-voiding, then Tom has an obligation to take Geri to the ball and an obligation to pick up Spike from the hospital. If it turns out that Spike is discharged from the hospital at the time when Tom is due to take Geri to the ball, then Tom has an obligation to take Geri to the ball and an obligation to pick up Spike, but he cannot fulfil both. His obligation to pick up Spike, let us assume, outweighs his obligation to take Geri to the ball, so he ought to pick up Spike. But then his obligation to take Geri to the ball did not make it the case that he ought to take Geri to the ball; though it will make it the case that he ought to make
amends to Geri in some appropriate way, even if only by giving an explanation for his failure. We cannot specify in advance all the types of situations in which a particular type of obligation will come into conflict with other obligations. For example, Tom’s obligation to take Geri to the ball might have been outweighed by obligations arising from other exceptional circumstances, such as other promises Tom made, debts he is obliged to pay (which claim the money he set aside to buy or hire a suit), unusual circumstances which preclude him from getting to the ball without killing an innocent person, and so on. Still, the connection between an agent’s obligation and what the agent ought to do is necessary in non-exceptional cases. So we can more accurately express our moral law-statement concerning what agents ought to do in the following statement of form (L’):

(ii) necessarily, any person, $x$, is such that, if $x$ has an obligation to $\phi$, and there is no interfering obligation which outweighs it, then $x$ ought to $\phi$.

There is, of course, an important difference between moral laws and ceteris-paribus laws of nature, despite the structural similarities. A ceteris-paribus law of nature, in conjunction with a particular type of circumstance featuring a specific body, will (other things being equal) make it the case that the body does behave in a particular way. In contrast, a moral law, in conjunction with a particular type of circumstance featuring a specific person, will (in the absence of interfering conditions) make it the case only that the person ought to behave in a particular way; and we know all too well that people often do not behave as they ought.

However, the fact that statements of laws of nature which require ceteris-paribus conditions can be explanatory promises to throw light on how moral principles with ceteris-paribus conditions may be action-guiding and perhaps also how they may be tested. That, though, is a topic for a separate paper.

3. Laws, Necessity and Forces

Robinson argues that there are a number of ways of conceiving laws of nature but if moral principles are construed in those ways either they will not be necessary or it will be left unexplained how obligations may be pro-tanto. He proceeds by elimination, considering in turn different ways of conceiving laws of nature.

First, he considers conceiving laws of nature as Humean regularities; but, he says, statements of Humean regularities – for example, as conceived on the Mill-Ramsey-Lewis theory – impute no necessary connections, cannot explain the phenomena of which they are true, and do not entail counterfac-
tual conditionals. Consequently, if moral principles were construed in that way, they would not be necessary (Robinson 2008; 2011: 293–96; 2014: sections 2 and 3). Robinson’s argument here covers well-worn ground and appears to be clearly correct, though it is usually taken to show (rightly, in my view) that Humean conceptions of laws of nature are mistaken (see, for example, Carroll 1994: chapters 1–3).

Second, Robinson considers conceiving laws of nature as involving a relation of necessitation between universals along the lines of Dretske-Tooley-Armstrong (DTA) theories. However, he says, David Armstrong’s metaphysic contains non-dispositional states of affairs, types of states of affairs (universals) and relations between such types, but it does not contain things like forces which may outweigh one another. There is, he says, nothing in that metaphysic that would help to explain how it could be true that obligations are pro-tanto, if moral principles were construed as laws of nature so conceived (Robinson 2014: section 5). This part of Robinson’s argument seems incomplete given that it seems to be directed at Armstrong specifically rather than at DTA theories generally; and since Armstrong actually accepts the existence of forces, as Robinson notes (2014: section 5), this part of Robinson’s argument also seems flawed. Fortunately, we need not linger on it, for the crucial weakness in Robinson’s argument is in the next stage.

Third, Robinson says, ‘Taken together, the [Humean] regularity theory and the DTA theory exhaust the usual suspects for accounts of what a law of nature is’ (Robinson 2014: section 2). However, even if that quoted claim were true, it would not yield Robinson’s conclusion, because ‘the usual suspects’ do not exhaust the field. As we saw in section 2, there is another conception of laws of nature, namely, the necessary-relationship conception, which was suggested by William Kneale and by Karl Popper, each of whom is a significant philosopher who should not be overlooked. Further, that conception has recently been developed and defended by John Carroll, who argues against the Humean and DTA conceptions (Carroll 1994: chapters 2–3 and appendix A). The Kneale-Popper conception avoids Robinson’s criticisms of the Humean-regularity view, since statements of the forms (L) and (L’) impute necessary connections, entail counterfactual conditionals and can explain the phenomena of which they are true. It can also, as illustrated by (a) in section 2, admit the existence of forces which may outweigh one another and, to that extent, can explain how obligations are pro-tanto. Therefore, a necessary-relationship conception of laws of nature avoids Robinson’s objections.

The necessary relationship conception of laws of nature is inconsistent with a Humean or radical-empiricist ontology which denies the existence of necessities in nature and it can be conjoined with the affirmation of the existence of forces, as we noted. However, it is also consistent with the denial
of the existence of forces. This is worth noting because there is a tradition in philosophy of conflating the necessity of laws of nature with forces. That tradition goes back to Hume, who often uses ‘force’ and ‘necessity’ interchangeably and connects them both with constant conjunction (1739: section xiv). The tradition was perhaps entrenched by Kant who, on the one hand, places ‘under the category of causality the predicables of force, action and passion’ (1787: B108) and, on the other, says ‘the very concept of a cause so manifestly contains the concept of a necessity of connection with an effect and of the strict universality of the law’ (1787: B5; see also B123–24). However, we can envisage a half-hearted empiricist who admits that laws of nature are necessary relationships, because accidental generalisations cannot explain, yet dismisses as animistic all claims that there are forces in nature. Contrariwise, a critical rationalist, like Popper, can accept both necessary relationships (1959: Appendix *x) and forces (1982: 93–95).

Further, in the history of science, while some statements which have been accepted as expressions of laws of nature have spoken about forces, others have not. For example, the statement of Newton’s First Law concerns force and inertia, the statement of his Second concerns force, mass and acceleration, the statement of his Law of Universal Gravitation concerns force, mass and distance, the statement of Coulomb’s Law concerns force, charge and distance, the statement of Boyle’s Law concerns pressure (and thus force) and volume; and so on. On the other hand, there are a number of propositions which have been accepted in science, at one time or another, as expressing laws of nature which do not, or need not, affirm or imply the existence of forces. These include the law of the conservation of matter, the statement of Snell’s Law concerning the angles of incidence and refraction of a wave, the law-statement of special relativity according to which (necessarily) the speed of light in a vacuum is constant in all inertial frames of reference, and the statement of the law of gravity in general relativity which dispenses with force in favour of space-time curvature; also, in quantum physics the EPR/B experiment appears to describe situations in which the motions of separate microphysical particles are related by a quantitative law of nature even though there can be no forces acting between them to bring about the result.

4. Dispositions

Robinson claims that a dispositional account of obligation has explanatory superiority over a moral-law account. He implies that accounts of obligation in terms of moral law accept the pro-tanto character of obligations as a brute, inexplicable feature of the moral domain, and he says that, in contrast, his dispositional account of obligation provides the desiderated explanation (2014: end of section 5).
On his dispositional account (Robinson 2008: 1–2; 2011; 2013: sections 3–7; 2014: sections 6 and 7), moral agents and patients have dispositions to generate pro-tanto obligations. For example, a child drowning in a nearby pool may be a circumstance in which Tom’s disposition to be pro-tanto-obligated to help people is triggered; and Tom’s promise to take Geri to the ball was a circumstance in which he exercised his disposition to obligate himself by promising, which disposition manifested in his pro-tanto obligation to take Geri to the ball. This is analogous to the fact that, barring finks and antidotes (see Bird 2005: section 4), striking a brittle object triggers its disposition to break, or salt immersed in water manifests its disposition to dissolve. Robinson stresses the analogy between moral dispositions and those causal dispositions which generate forces, as a body with gravitational mass has a disposition to exert a gravitational force on an object if that object is within its gravitational field. This analogy, he says, permits an explanation of the possibility of pro-tanto obligations which make possibly conflicting contributions to deontic outcomes, because forces may vary in magnitude, may conflict with each other, and often interact to determine physical outcomes. For example, a refrigerator magnet is subjected to a magnetic force pulling it toward the door of the refrigerator and a gravitational force pulling it toward the floor; but it adheres to the door because the former force is stronger. He says that, just as some theorists maintain that causal dispositions are irreducibly dispositional properties that are the metaphysical grounds of causation and causal laws, so moral dispositions are irreducibly dispositional properties of moral persons that ground the obligations of moral agents and that entail, engender or otherwise guarantee ceteris-paribus moral laws. As he puts it (2014, section 6), ‘dispositions are ontologically more basic than laws.’

It hardly seems an explanation of the possibility of pro-tanto obligations merely to point out some analogies between them and physical forces. Further, insofar as we accept that as an explanation, it is one that can be invoked by the theorist who assimilates moral laws to laws of nature. We noted, in section 3, that an adherent of the necessary-relationship account of laws of nature can welcome forces into his ontology and that in science it is commonly accepted that some laws of nature are relationships between forces and other things. Thus, insofar as Robinson’s dispositional account can explain how obligations can be pro-tanto, by appealing to an analogy with forces, a necessary-relationship moral-law account can do so too.

Indeed, it seems that talk of dispositions can always be re-phrased as talk about laws, so long as such laws are construed as necessary relationships. Thus, Bird (2005) argues that the counterfactual analysis of dispositions can be saved, provided the counterfactual conditional is qualified with a ceteris-paribus clause which allows for the finks and antidotes of the disposition. Therefore (Bird 2005: end of section 2, and section 5), assuming the dispositional nature of properties to be essential, the truth of a statement of the form
anything which has the disposition, \( D \), will manifest \( M \) in response to stimulus \( S \), barring finks and antidotes entails the truth of the corresponding statement of the form

necessarily, anything is such that, if it is \( D \) and is subject to \( S \), and other things are equal, then it manifests \( M \).

The latter statement-form exemplifies our standard form of a statement of a ceteris-paribus law of nature, (L'). For example, Galileo's false law-statement,

anything which is an unsupported terrestrial body has a disposition to fall to earth with a constant acceleration,

can be alternatively expressed as,

necessarily, anything, \( x \), is such that, if \( x \) is an unsupported terrestrial body and other things are equal, then \( x \) falls to earth with a constant acceleration,

which has the form of (L'). So, whenever Robinson explains something about obligations in terms of dispositions, it seems there will always be a counterpart explanation in terms of laws construed as necessary relationships.

Robinson seems to grant that a dispositional explanation will always have a nomological counterpart when he affirms that dispositions 'entail, give rise to, or otherwise guarantee laws' (2008: 2). However, what he there means by 'laws' is mere Humean regularities, and he quite rightly insists that Humean regularities are not explanatory (2011: 296–97). If he had not overlooked the necessary-relationship conception of laws, he might have seen the connection between dispositions and genuine laws of nature.

It is possible that someone could grant the necessary-relationship conception of laws, and that disposition-talk can be translated into law-talk, yet still contend that dispositions are ontologically more basic than laws. Such a person might think that laws cry out for explanation in a way that dispositions do not. But why should anyone think that? Plainly, such a person would be more comfortable with talk about dispositions than with talk about laws and may need to translate the latter into the former before she feels that she properly understands it. However, other people may take the opposite view, finding talk of laws (understood as necessary relationships) more natural than talk of dispositions. But if dispositions are just laws by another name, we can explain phenomena either by invoking a law or by invoking a disposition. If so, Robinson's preference for the latter kind of explanation appears to be purely verbal.

It has been claimed that some laws of nature do not have corresponding dispositions. Claims of this sort have been made for laws involving fundamental constants, conservation and symmetry laws, least-action principles,
and laws relating properties (such as inertial and gravitational mass) which are embedded in distinct laws. These claims are contested, but some of them, particularly the last, are admitted to pose difficulties for the dispositional view by advocates of that view (see Bird 2005: sections 6 and 7). If at least one of these claims turns out to be true, then, while every disposition will correspond to a law, some laws will not correspond to dispositions. This, it might be held, would make laws rather than dispositions ontologically more basic. If that is so, then Robinson’s preference for dispositional rather than nomological explanation is mistaken rather than merely verbal.

5. Conclusion

There is a strong analogy between moral principles and ceteris-paribus laws of nature, which enables our understanding of the latter to illuminate the former. An important disanalogy is that statements of moral principles entail statements about how people *ought* to behave rather than statements about how people *will* behave. Still, the fact that statements of laws of nature which require ceteris-paribus conditions can be explanatory promises to throw light on how moral principles with ceteris-paribus conditions may be action-guiding and perhaps also how they may be tested.

Robinson objects that an account of moral principles as analogous to laws of nature either cannot explain how moral principles can be necessary or cannot explain how obligations can be pro-tanto. However, the objection overlooks the conception of laws of nature as necessary relationships. Robinson claims that a dispositional account of obligation has greater explanatory merit than a nomological account. However, the claim is spurious, since dispositional explanations seem easily transformable into nomological ones. Further, Robinson’s preference for grounding obligations in moral dispositions rather than in moral laws (construed as necessary relationships) seems mistaken if it is not purely verbal.

References


