1 Norms in human development: introduction

Leslie Smith

1 Introduction

The central issue is both general and well known as being problematic. It concerns the relation between the factual and the normative, between 'what is the case' on the one hand, and 'what has to be done' or 'what has to be' on the other. This issue is fundamental and recognized to have a direct relevance to contemporary neuroscience (Changeux, 2000; Damasio, 2003) and to current philosophy (Goldman, 2001; Nozick, 2001; Putnam, 2002). The particular version of the question at issue in this book is normativity in developmental psychology (DP).

The question 'Can DP deal with normativity?' has a standard answer 'No'. In outline, the argument for this answer runs like this. DP is an empirical science whose domain of investigation comprises developmental facts for description and explanation. Since norms are not facts, normativity does not fall within DP's domain of investigation. Further, normativity is itself a complex notion, suitable for philosophical, but not scientific, investigation. Philosophers have identified two classes of norms, concerning 'what has to be' and 'what has to be done'. Neither amounts to 'what is the case', so neither is in the scientific domain. The conclusion seems inescapable. DP does not deal with normativity, nor is normativity on DP's list of outstanding problems. Chemistry long ago parted company from alchemy. Astronomy long ago ceased to address the question of whether human destiny was written in the heavens. So too, this answer runs, DP ought to leave normativity out.

And there's the rub – *DP ought to leave normativity out*. The term *ought* along with comparable terms such as *has to*, *must*, *may*, *can*, *must not*, *should not* are normative. If DP is the science of the human mind and action, its silence about this reflexive requirement binding on itself is awkward. Cannot DP make some contribution here? The answer 'Yes' to this question has its own argument that, in outline, runs like this. The normative requirement – *DP ought to leave normativity out* – does not exhaust the class. Far from it, and other members of the class are

ubiquitous in the lives of individuals in their societies. If DP has nothing to say about the members of this class, DP is not comprehensive. Norms are used by people and groups to make commitments. These commitments are directives in the regulation of action and thought. Individuals think and act both in terms of them and on account of them. The use of normative capacities has causal consequences without normativity being itself reducible to causality. That is why norms are suitable for inclusion in DP's domain of investigation. The failure to address normativity in DP would amount to a fundamental omission. In short, DP ought to include normativity in its stock of problems.

Since these two arguments have contrary conclusions about DP and normativity, they cannot both be right. The main aim in this Introduction is to address this problem head-on. The challenge ahead is to show that normativity is something to be taken seriously in DP, and in allied disciplines too. This challenge is addressed in four parts. The main outcome is that the initial question 'Whether DP can deal with normativity' can be replaced by a better successor 'How can developmental psychology deal with normativity?'

2 Why normativity is left out of developmental psychology

To the question 'Can the science of developmental psychology deal with normativity?' the standard answer is 'No'. This answer has a twofold rationale, one based on the empirical nature of science, the other on its demarcation from normativity.

2.1 Fatal ambiguity: natural and normative laws of thought

Psychology is the science of the mind, in much the way that physics is the science of matter. So there seems to be a way forward after all, namely a psychology of the laws of thought on the model of physics and the laws of nature. Although physics and psychology differ as to their domains – the physical and the mental respectively – they are similar with regard to the laws true of these different domains. These laws are natural laws based on factual evidence about causality. Just as physics is the search for the laws of nature explanatory of the physical world, so too is psychology the search for the laws explanatory of the mental world. In the case of psychology, these laws are laws of thought. The search for these laws of thought is sufficiently inclusive to cover normativity, and not merely causality.

The problem is that the natural and the normative are not the same thing at all. Indeed, there is a fatal ambiguity in the very notion of 'laws

of thought' which was elegantly identified by Gottlob Frege, the founder of modern logic, at the start of the twentieth century.

> What is fatal is the double meaning of the word 'law'. In one sense a law asserts what is; in the other it prescribes what ought to be (but the) expression 'law of thought' seduces us into supposing that these laws govern thinking in the same way as laws of nature govern events in the external world. (Frege, 1964, p. 12)

Even if natural laws are descriptions of 'what is the case', normative laws are not descriptions in this sense. Further, normative laws are laws about 'what ought to be done' or 'what ought to be the case'. So the parallel between physics and psychology breaks. Under this argument, what is looming is a forced choice for psychology between causality and normativity. The 'laws of thought' could be causal laws about the mind, or they could be normative laws about the mind. But they could not be both at once.

This forced choice can be elaborated. The suggestion was that psychology can be 'just like' physics. It is innocuous for a *physicist* to say that something is forbidden in *physics*. Thus Stephen Hawking recently contrasted Newton's and Einstein's theories, making the point that one of these theories embodied something forbidden. *Forbidden* is a normative notion. For example, if Newton's theory has the consequence that gravitational forces are instantaneous in their effects throughout the universe in being dependent on transmission faster than the speed of light, such a consequence is 'something that was *forbidden* by relativity' (Hawking, 2001, p. 14 – my emphasis). Note well: Hawking was not saying that the natural laws of Newton's physics stated a prohibition, i.e. stated that something *should not be*. Rather, he was saying that a physicist presented with two theories with contrary implications about 'what is the case' in the physical world should choose one and reject the other. Similarly, if psychology is like physics, an empirical science of psychology would describe 'what is the case' in the mental world. Normative commands and prohibitions would be absent from psychological theories about the mind. True: they could be manifest in the thinking of real psychologists in much the way that they are manifest in the thinking of real physicists. But that is exactly the point at issue! So interpreted, no theory in psychology dealing with the laws of thought would have anything to say about normativity. It would focus exclusively on natural laws about the mind, leaving out 'what has to be' and 'what has to be done'. Yet the psychologist would all the same realize that something was forbidden. The tension here is acute in DP aimed at a comprehensive model of the mind. Despite a normative realization being in the mind of the psychologist, normativity would be 'left out' of psychological theory.

In short, normativity would be left out of DP in much the way that perpetual motion machines are 'left out' of physics.

2.2 Developmental psychology as an empirical science

As a branch of psychology, DP has three features. First, it is an empirical science. Second, it investigates human minds and actions through the lifespan from infancy to adulthood in individual and socio-cultural contexts. Thirdly, it provides descriptions of sequences as changes through time under social conditions, and explanations by reference to their change-mechanisms. For present purposes, the key feature is the first one. If DP is an empirical science, its *modus operandi* is that of any science and so two conditions apply:

- DP's laws are natural laws
- DP's laws are factually testable

Both conditions fit a widely accepted account of empirical science (Popper, 1968). Although this account of science has attracted critical commentary, neither condition is materially affected (Kuhn, 2000; Laudan, 1996). On this view of science, DP proceeds in the same two steps, one by devising universal laws of nature, the other by testing them in terms of their factual consequences. But norms are out of step twice. Normative laws are not natural laws, and so norms do not figure in the first step. Nor are they in the second step: norms are not facts, and so do not figure in empirical testing.

Facts are facts open to observation and experimentation. They serve in empirical testing directed on the causality of natural laws. Further, if these laws are causal laws, the relevant facts are causal facts. Indeed, testability in science strictly requires that all testing is factual testing. But normativity is not like this at all. First, the relation between norms and facts is problematic. Second, norms are used to make reflective judgments about facts.

The problematic relation between facts and norms

What is this relation? Two main candidates are entailment in logical deduction, and causality in science. Yet neither fits the relation between facts and norms.

The relation is not entailment. The argument that norms are not necessitated by facts alone was famously stated in 1739 by David Hume. The main point behind this argument is widely accepted (MacIntyre, 1998; von Wright, 1983). Dissenting views have been expressed about how, contrary to first impressions, normativity can be introduced into

apparently non-normative premises, but these views do not alter the basic Humean point (Searle, 1969; Bickhard, 2003). Hume's argument was that facts are statements about what *is the case*. As such, they are different from norms about what *ought to be* the case or what *ought to be done*. Therefore, some explanation is owed as to why 'is' premises are sufficient for the deduction of an 'ought' conclusion.

> This slide is imperceptible; but is, however, of the last consequence. For as this *ought*, or *ought not*, expresses some new relation or affirmation, tis necessary that it shou'd be observe'd and explain'd; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it.
>
> (Hume, 1965, Bk III, Pt I, §I)

Remarking ironically that nobody ever provides such an explanation, Hume recommended his readers to follow suit – something they *should* do, if you will. Simply put, Hume's Rule is that *ought* cannot be derived from *is*. For example, suppose you are a director with limited resources insufficient to assist all groups, and have been presented with reliable evidence. This evidence is evidence about what is the case for use in making a decision about which group should be given assistance, and by implication which group given none. Suppose the evidence states:

members of group *A* regularly out-perform members of group *B*

Two conclusions can be drawn from this evidence in this context:

(A) Extra educational assistance should be given to group *A*
(B) Extra educational assistance should be given to group *B*

Notice that (A) and (B) are both normative, both lay down what *should* happen. But neither conclusion is necessitated by the evidence. Indeed, (A) and (B) are contraries in this context since a forced choice is made between them. Yet in logic, contrary conclusions could not be entailed by the same premises – in this context, (A) rules out (B), and (B) rules out (A). So there is no entailment here from this evidence to (A) or to (B). The way out is also clear. Either inference can become valid, if it is combined with a normative premise. This premise might be explicitly stated; more frequently, it would remain unacknowledged. For example, the same evidence along with

(A1) Scarce funding ought to be used to maximize excellence
(B1) Scarce funding ought to be used to compensate inequalities

entails (A) and (B) respectively. But (A1) and (B1) are both normative. Both contain an *ought*. And that is exactly the point. Hume's Rule

amounts to the heuristic: if someone makes a commitment to one norm, there is always another norm behind it, rationally speaking. But no norm is necessitated by facts alone.

Causality as the relation between facts and norms fares no better. Hume's analysis of causality is decisive on this, too. As well, there is an added complication about transitivity. Four criteria of cause–effect relationships were stated by Hume (1965, Bk I, Pt III, §15):

- contiguity in space and time
- temporal priority of cause over effect
- constant conjunction of cause–effect
- universality of same cause–same effect

If norms are effects in causal sequences, all four are violated. Norms are not in space. New norms can be issued prior to any evidence about new circumstances. Constant conjunction is breached due to human frailty – weakness of the will is such that people may fail to think or act rationally in any particular case. Finally, universality is violated since the same facts do not generate the same norms – witness the contraries (A) and (B) in response to the same evidence.

As well, there is an added complication about transitivity. All causal sequences

if X → Y and Y → Z, then X → Z

are transitive. This is because propositional implication is transitive (Sainsbury, 1991). Thus the so-called Bruce effect occurs as the blockage of a female mouse's pregnancy by exposure to the sexual activity of a second male in that 'genes affect proteins, and proteins affect *X* which affects *Y* which affects *Z* which . . . affects the phenotypic character of interest', in this example the outcome of the second male's sexual activity on the female mouse's pregnancy (Dawkins, 1999, p. 232; the 'Bruce effect' is cited on p. 229). But normative sequences are non-transitive – sometimes the inference goes through, sometimes not. And this means that if a sequence is not transitive, it is not causal. For example, suppose your training has led to your acceptance of the tenets of evolutionary psychology, i.e. norms are causally produced by Darwinian mechanisms (Bjorklund & Pellegrini, 2002; Changeux, 2000). You also live during World War II in a country occupied by the Nazis who 'make you' accept their view that Nazis are a superior race due to the working of biological causality. A Jewish family is hiding in your house with the Gestapo at the door, so you risk your own death by concealing them. In such a case, are you obliged – that is, caused – to hand them over to the Nazis? Not so! You may well believe that you are

not obliged to do things which preserve a species that produced the Nazis (Korsgaard, 1996, p. 15). Further, your belief may have a rational basis. If so, the rationale behind your belief would be non-causal. In short, causality is too weak a relation to be productive of normativity.

In general, the relation between facts and norms is neither of the two obvious candidates. It is neither entailment nor causality. This means that no exclusively causal model of the mind can be explanatory of the norms issued and used by people in their action and thought. Nor will any exclusively formal model of the mind fare any better.

Norms are used to make reflective judgments about facts

This leads to the second point that norms are used to make reflective judgments about facts. Any fact at all is open to normative judgment or reflection on that fact, whether as a confirming endorsement or as a critical challenge. Making a normative judgment in and of itself does not, and cannot, change causal facts. But facts can be scrutinized and evaluated by human agents who always have the ability to give – or to refrain from giving – their assent to them. Human agents can as well challenge the facts in taking a stand which can be a bold and creative step forward. Here are two examples:

King Canute

The use of a normative capacity does not amount to miracle-making, and so cannot suspend causal laws. Even so, normative judgments can be made about causal regularities. King Canute was exemplary. Endlessly told by his obsequious courtiers that his regal powers had no limits, he issued the command – a normative matter – that his throne was to be placed in front of the incoming tide. He then declared:

> I command you to come no further! Waves, stop your rolling! (Baldwin, 2005)

The king did this precisely to remind his courtiers about the scope and limits of normative action and thought. Effectively, he was pointing out that his courtiers should acquire a better understanding of the interaction of causal and normative laws. Yet for all that, his judgment was normative.

Martin Luther King

Invited to address the American Psychological Association in 1967, he issued a series of normative judgments:

> you who are in the field of psychology have given us a great word. It is the word maladjusted [*sic*]. It is a good word [with its implication that] destructive

maladjustment *should* be destroyed. But on the other hand, I am sure that we all recognise that there are some things in our society, some things in our world, to which we *should* never be adjusted. There are some things concerning which we *must* always be maladjusted, if we are to be people of good will . . . We *must* never adjust ourselves to racial discrimination and racial segregation . . . We *must* never adjust ourselves to the madness of militarism, and self-defeating effects of physical violence. (King, 1968, 185)

The psychological findings at issue were causal regularities. Yet the judgments expressed about them were explicitly normative. The address made clear that psychology had provided a service in its investigation of the causal basis of maladjustment. All the same, a normative view was expressed that there are some things to which everybody should be maladjusted, including racism and militarism. This amounted to a normative challenge to the prevailing state of things in society. It is well known that these normative admissions turned out to be historically important, a paradigm case of normative judgment which actually did result in social change.

In short, normative judgments are made by people in reflecting on their beliefs and actions. Norms play a regulative role in the making of human judgments (Brandom, 2000; Ricoeur, 2000). Since these judgments are normative, they are not causal.

Summary

If DP is an empirical science in the search for natural laws and their explanation through causal theories, norms would be absent from its domain of investigation. This is because facts and norms are independent of each other. Natural laws and normative laws of thought are not the same thing. Norms are neither necessitated by nor causally generated from facts alone. Rather, norms serve to make reflective judgments about the prevailing facts. The options open to DP under this view of its scientific status are twofold. One option is to ignore normativity altogether. The other is to reduce normativity to causality. These options are now taken up, with a third option identified in §5.

3 How norms are currently interpreted in the science of psychology

The argument in §2 has been well taken in psychology, and in the social sciences generally. Both options have had distinguished sponsors. This is evident in the commitment to four interpretations of normativity which amount to the dominating position in psychology. Note well: in

its own terms, each member of this quartet is valid. Even so, none goes to the core of normativity. This quartet is now reviewed in two parts, one identifying the four interpretations in psychology generally, the other their applicability to DP. It is worth stating that the discussion in this section is subject to a major qualification that a dominating position is not a universality.

3.1 Four non-normative interpretations of norms in psychology

Four interpretations are set out. In its own terms, each is intelligible and valid. Even so, severally and jointly, they miss the main plot about norms.

Behaviourism: norm as non-entity

In this interpretation, norms are either disregarded as being beyond the psychological frame of reference, or denied to exist for psychological explanation at all.

Behaviourism is the branch of empiricist psychology with an ABC ontology of observables – antecedents, behaviour, consequences. Behaviourism then subdivides. The tolerant version – methodological behaviourism – concedes the existence of non-observables, which are then ignored (Watson, 1930). The radical version – metaphysical behaviourism – denies that non-observables such as knowledge, consciousness and values are there at all (Skinner, 1974). Normativity is a member of this same class of excluded non-entities. Skinner used the example of instructions on a vending machine. The directive is: 'to operate, place coin in the slot and pull plunger beneath item wanted' (p. 120). Skinner's gloss on this is that directions do not impart knowledge or convey information; instead, they describe 'behaviour to be executed and state or imply consequences' (p. 120).

Yes: people learn – they learn how to operate a vending machine, place coins in slots, pull levers, and so on. Behavioural sequences such as these can be observed. Even so, this is like *Hamlet* without the Prince of Denmark. A directive is not just a behavioural regularity, but is instead a norm (Ross, 1968; von Wright, 1963). The term *how to* is normative in meaning – learning how a machine works and learning how to work the machine are not the same thing, in that one is descriptive, and the other is normative (Simon, 1981). Anyone who wanted to gain by legal means an item on sale in the vending machine would *have to* – normative requirement – comply with the directive. If the item wanted was freely available, the machine would have malfunctioned – another normative notion. Quite simply, both forms of empiricism have the same consequence – normativity is left out, either in fact or in principle.

Psychometrics: norm as average

In this interpretation, norms are taken into account as what is descriptively or statistically normal, typical or average.

Norms have an explicit place in psychological measurement, notably in psychometrics. A norm in this sense refers to what is typical or average with a view to the interpretation of scores, i.e. in norm-referenced testing.

> Psychological tests have no predetermined standards of passing or failing; performance on each test is evaluated on the basis of empirical data. For most purposes, an individual's score is interpreted by comparing it with the scores obtained by others on the same test . . . a norm is the normal or average performance. (Anastasi, 1982, p. 24)

So characterized, a norm identifies a descriptive tendency. If a series of tests form a longitudinal series, norm-referenced scores map out how far an individual has progressed along 'the normal developmental path' (p. 71). If the scores gained by person *P* are all average scores in this sense, then *P*'s performance is normal.

Normality in this descriptive sense is not normality in a normative sense. Descriptively, a normal performance is the performance of the average person. Yet it can always be asked: is it normal to be normal? Normal performances can and do change. Sometimes the change is upwards, such as the 'Flynn effect', consisting in the five to twenty-five points' increase in intelligence test scores over generations (Neisser, 1998), and sometimes downwards, such as the half to a full standard deviation decrease in scores on Piagetian tests over a generation (Shayer, 2007). Descriptive normality is evidently mobile, but not its normative counterpart in the question: 'Is that normal – does it have to be so?' Take another case: recent polls continue to attest the belief of most US adults that biological life is due to intelligent design, not to evolution. Further, these twenty-first-century adults hold comparable beliefs about the content of the biology curriculum in schools (Mooney, 2003). So the beliefs of these US adults are normal; and they are also non-normal. The whiff of contradiction is dispelled by the distinction between descriptive and normative normality. Their beliefs are normal, i.e. commonly held; but that has no bearing on whether the beliefs are normal, i.e. these are the right, or true, beliefs to hold about evolution. A psychological interpretation reliant on descriptive normality alone has left out something fundamental. Indeed, probability is itself a normative notion (cf. Girotto & Gonzalez, this volume, Chapter 10).