THE INTRINSIC-EXTRINSIC DISTINCTION: A ONE SIDED COIN

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To people concerned with theoretical integration in psychology, one of the major stumbling blocks has to be the current state of psychological ontology. By ontology we mean the basic knowledge about what sorts of things do psychological concepts refer to, what distinguishes these things from one another, and how do they relate to other distinct things in psychology. Many kinds of debates in psychology are classic examples of ontological confusion: whether things like “mental disorders”, “learning”, “intelligence”, are best thought of as having essential characteristics, or whether they can only be understood as socially constructed concepts; whether “trait” is merely a descriptive shorthand for a pattern of behavior, or whether it should be treated as having explanatory, even causal, force; the question of whether “mind” and “brain” are supposed to be taken as referring to the same thing, or whether one of them even exists at all; or what exactly is meant by the word “culture; these are just a few of the annoyingly tangled melees that we have found ourselves in.

Concepts in psychology embody certain claims about psychological phenomenon, and it is valid to judge these claims on the basis of whether or not the constructs posited are intelligible. Unclear or contradictory conceptualizations make empirical investigations problematic whatever it is that the studies actually yield, since it can become almost impossible to situate those findings theoretically if we cannot distinguish between outcomes and cases and variables because of the lack of clear definitions.

To me, notable among these ontological jabberwocks are the celebrated constructs of intrinsic and extrinsic motivation. In my own academic experience, they can be almost impossible to deploy consistently without all sorts of ad hoc suppositions, and I have observed

students hard-pressed to justify why something might either fall on the intrinsic side of things and not the extrinsic. I have now come to suspect that this is neither a failure of understanding on my part or that of my students, but simply a consequence of the fact that the intrinsic-extrinsic distinction (I-E) might not be as substantial as we have been led to believe. In the subsequent discussion, I will attempt to identify what it is about I-E that is so troublesome from a conceptual point of view, and what ways forward are available to the theorist interested in motivation.

Reiss' critique

Reiss (2005) provided a handy review of the important objections to the I-E conceptualization of motivation, looking at conceptual, measurement, and experimental validity issues. It is important to note that Reiss claims these theoretical problems as motivation for his own framework of motivation, which will be reviewed later.

Reiss identifies three definitions which he thinks are untenable that have been applied to substantiate I-E. The first, which he attributes to White (1959), holds that intrinsic motivation would be seen in activities that are essentially motivated by competence, and that competence as a motivation is generated by the self ("ego motives") rather than a response to environmental contingencies. Reiss punctures this argument by pointing out that there is no evidence that need for competence is the essential driver of alleged examples of intrinsic motivation like play and curiosity.

Reiss' second target is a family of theories that relies on the distinction between internal and external motives. Referring to Deci and Ryan (1985) as contemporary purveyors of this proposition, their basic position seems to be that intrinsic motivations are somehow non-physiological in nature (i.e. more cognitive than neurological, whatever that means), while

extrinsic motivations (e.g. hunger, thirst) are. This is specious as an argument, as Reis points out, because it relies on a neurophysiological distinction that does not seem to be supported by any neurophysiological results, along with a highly suspect reliance on a cognition vs. nervous system divide (Reiss actually accuses them of a species of dualism).

The third argument hinges on the supposed pleasure that is both cause and an inalienable part of intrinsically motivated actions, whereas in extrinsically motivated acts pleasure is only derived as a consequence of some resulting reward *after* the act. Reiss marshalls arguments from analytic philosophy to assert that pleasure properly understood can only be a consequence of actions and not a cause. Deficits, needs, drives, goals can all be instigators of motivated behavior, and it is the satisfaction of these that could eventually generate pleasure. To Reiss, it is only confused theoretical thinking that could lead to the postulate that anticipation of pleasure is the origin of intrinsic behavior; therefore, a person does not read a book for pleasure, but they read because they desire mental or imaginative stimulation, which if fulfilled could cause feelings of satisfaction and pleasure.

Finally, Reiss dismantles what he terms as the “means-end” definition, which he attributes to Greene and Lepper (1974). He characterizes this position as making the distinction between actions which we choose to do for their own sake on the one hand, and those that that we do to achieve some other further goal, as merely a means to an end (say, to earn money). Here Reiss deploys what I think to be a particularly interesting and effective argument, which basically says that all psychologically motivated behaviors involve means and ends, even those that are supposedly “ends in themselves”. Reading a novel is just as much a means to the ultimate (and separable) end of mental stimulation, in the same way working for profit might be.

Convincing as Reiss’ arguments might be, it seems to me that he is overly skeptical regarding the possibility of strongly self-sustained motives. He says the following:

“If it were otherwise-if enjoyment were intrinsic to the behavior itself rather than a consequence of satiation of a motivating need or desire-then the mere performance of the behavior would be reinforcing. I submit that the concept of an inherently enjoyable behavior implies a self-reinforcing behavior. As seen in the example of self stimulatory behaviors in autism, self reinforcing behaviors are extremely repetitive and do not satiate easily (Carr, 1977). If intrinsic motives such as curiosity and play were self-pleasuring, they would not satiate as quickly as they do.” (Reiss 2005, p. 4).

I believe that this can immediately be refuted by evidence of deep-brain self-stimulation of reward centers, which in humans and non-human animals has been shown to very quickly escalate into sustained behavior displaying the features of addiction (Olds 1958). Further, very cleverly structured play that does not lead to physical exhaustion, as is afforded by many modern computer games, can lead to instances where satiety is not easily reached, if at all. In many ways, the same would be true of gambling, if only funds were infinitely replenishable. It therefore seems to me that Reiss is generally correct in his critique of I-E, but is unnecessarily dismissive of the strength of self-sustained behavior.

I-E according to Ryan and Deci

Ryan and Deci have maintained throughout the lifetime of their framework, self-determination theory (Deci and Ryan 2012), that there is a clearly expressible distinction between intrinsic and extrinsic motivations. In an earlier paper, Ryan and Deci (2000) mention

that intrinsic motivation “exists in the nexus between a person and a task” (p. 56). They go on to elaborate a “means-end” distinction for I-E. The latter, as we have seen from Reiss, is problematic, while the former offers us a new line of inquiry into I-E. We have to ask “what kind of relation obtains between ‘a person and a task’ in the context of intrinsic motivation, and is this peculiar to intrinsic motivation?”. In what follows, I will try to demonstrate that there is actually no conceptually sound difference that can be used to distinguish intrinsic and extrinsic.

With regards to intrinsic motivation, SDT theorists construct a definition by invoking innate psychological needs: it therefore follows for SDT that an activity that is undertaken to satisfy one of these innate psychological needs would be classed as intrinsically motivated behavior. Extrinsic motivation, in contrast, are said to be actions done to achieve an outcome that is in some way independent of the activity itself. Let us take the example of one of the essential psychological needs that they identify, which is competence. The claim is that feelings of competence *accompany* the activity if it is being done for intrinsic reasons. This is evident in the way SDT theorists define intrinsic motivation:

“Intrinsic motivation involves doing an activity because it is interesting and enjoyable. It is often said that when people are intrinsically motivated, doing the activity is its own reward. However, although it may be heuristically useful to think about it that way, a more precise way of defining intrinsic motivation is in terms of the *inherently satisfying internal conditions that occur when doing an intrinsically motivated behavior*, thus helping to sustain it. These inherent satisfactions (experienced directly as interest and enjoyment) derive primarily from experiences

of competence and autonomy as well as, in some cases,
from relatedness.” (p. 88; italics are mine)

Given that we have previously asserted that satisfaction can only come at the conclusion of an action and never before, what I-E theorists are saying is that engaging in some actions leads to satisfying consequences. What distinguishes this from extrinsically motivated behavior is that the satisfactions are “internal”. But, as we have seen from Reiss’ second argument, the basis for internality and externality of motives is dubious at best. I cannot see how the satisfaction of earning money, or getting praised by somebody, can be anything but internal to me since it is my psychological system that generates that satisfaction. Since it cannot be internality-externality that guarantees the I-E distinction, it is therefore the claim that the action satisfies a need like competence that is the crux of the argument for I-E. If this is what the proponents of SDT believe, then I must say that this is a weak argument at best because it cannot be used to distinguish between two mental states by virtue of their properties.

To take up again competence as an example. say that we have Ali and Abi who are both engaged in a bit of computer programming. Let’s say that Ali and Abi, during the task, are in exactly the same mental state (or series of states). Let’s say that actually the task only requires the input of a single line of code, which takes Ali and Abi all of 3 seconds to type out, and they do this exactly the same. They both run the single line of code. The computer gives Ali feedback that indicates the code was executed successfully, while Abi got feedback that there was an error in the code. Clearly there is something wrong with one of the computers, but let’s say that neither Ali nor Abi suspect that. Who then has satisfied the need for competence? It seems to me that the correct answer has to be Ali, while Abi will have even more of a deficit. But then this has the upshot of showing that it was the consequence of the activity and not the mental state (not even the activity) itself that led to this outcome. If we wish to then say that it was only Ali

who experienced intrinsic motivation, then clearly this is not on the basis of any “inherent” conditions but instead is tied to the outcome. But if that were true, then there would be nothing to distinguish the intrinsic from the extrinsic, which is also defined through outcomes. This then serves as a demonstration that I-E definitions cannot lead to decisive distinctions between mental states, and thus I-E distinctions are psychologically incoherent.

I-E theorists might attempt a reply by emphasizing the idea of “separable outcomes”. I assert that, based on the lines of reasoning reviewed above, outcomes are always separable. If we accept Reiss’ second and third argument, and we accept as reasonable the programming example above, then it seems inevitable to arrive at the conclusion that outcomes are not only distinct from both motivation and activity, they can also be independent of them. Consequences are always dictated by the nature of the task and the wider environment.

While it is true that Ryan and Deci eventually placed I-E along a continuum of varying degrees of self-regulation, this does not actually help anyone who is skeptical about the fundamental difference between the two poles. Turning I-E into a dimension instead of a typology does not get us any closer to resolving the conceptual problems with the construct; if two extreme poles cannot be told apart, we have even less reason to think that intermediate categories (which are by definition less extreme and distinct) would do a better job of helping us arrive at a definition.

One of these is a duck, the other is a quacker. Would making intermediate,

quasi-duck-quacker categories help us distinguish between the two?

I-E as attributions

In the latest formulation of SDT, Ryan and Deci clearly articulate I-E as attributional constructs (Deci and Ryan 2000), and use the term “perceived locus of causality”. This is not a new stance (see for example Brief and Aldag 1976) and viewed in this frame, it becomes less problematic to define I-E: actions which the person perceives, consciously or not, to be under the initiation and control of the self are intrinsically motivated, while those that are perceived to be initiated or controlled by external agents are extrinsic. While being parsimonious, it is also plainly a much weaker assertion than the original I-E thesis. After all, attributions are not necessarily reflections of “actual” motivational dynamics. To the extent that we in psychology accept that introspection is far from infallible especially when it comes to motives (as best argued by Nisbett and Wilson 1977), attributional I-E reflects a much narrower, and thus less powerful version of what came before. In many respects, we end up with concepts that are only related to motivation, rather than concepts of motivation itself.

Crucially, attributional I-E cannot be used to make hard and fast distinctions between activities (to be fair, original I-E didn’t do a much better job). Attributions can be the result of various perceptual and decision-making factors, and so it can be argued that classic examples of intrinsically motivated activities such as play can produce valid external attributions (e.g. “The class was so boring it just made me want to play”), while activities which are nominally extrinsic could foster internal attributions (e.g. “I perceive the money I earn as the indication of my competence”).

Another point that could be raised against attributional I-E is that the evidence seems to provide more support for the idea that it is not the external-internal distinction that is particularly

important but a different set of attributions altogether. Experimental results focused on I-E imply that, among other things, the extent to which a person perceives that external inducements are being used to control their actions would affect the motivational character of that activity.

Unfortunately, despite the attractive possibility of an attributional turn for I-E to a weaker but much more workable trajectory, SDT theorists seem to have missed their own cue and continue to deploy I-E in the strong sense. As recently as 2013, Deci and Ryan continue to make much of the fact that you can meaningfully differentiate “intrinsic aspirations” such as “personal growth, developing meaningful relationships, contributing to the community” (p. 92) from “extrinsic aspirations” such as wealth, fame, and having a good image. Our ontological bearings are once again a shambles.

Following closely on the heels of the attack levelled by Reiss, I have tried in the foregoing essay to interrogate the assumptions of the I-E distinction further and have come to the conclusion that the basis of the dichotomy is hopelessly muddled, and that the attributional solution actually surrenders the compelling force of its original motivational argument. Turning away from this dismaying state of affairs, we might wish to contemplate a new theoretical direction that would help us organize the motivational literature along more rational lines.

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