$[I]$: an identification-bound model of (ir-)rational emotion

by
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Abstract

$[I]$, or more elaborately, $PE[I(s)]X$, expresses a model of (ir-)rational emotion presented here: Perception, Evaluation, (optional) Identification with situation, eXecution. The paper presents the model as a minimal logical addition to an uncontroversial emotion-processing model for the case of human emotional psychology: adding $[I]$. It is here claimed that emotion is greatly inhibitory, and Identification is an inhibitory factor. Rational (identification bound) and irrational (unbound) emotions are hereby distinguished. Several superficially-distinct emotional categories are here derived as forming a natural category of unbound emotion, under the assumption that identification binds emotion, and given a certain non-action, namely non-identification. Applying non-identification to a variety of generic circumstances yields the following, or very closely related, emotional categories: (”=” means ”can be defined as”, and ”-” is here used as notation for ”NOT” or ”There is no”, or, ”Within the subjective limited psyche of an individual there does not exist an assertion”)

Humility = -I(s) where s includes social status. Forgiveness = -I(s) where s includes victimhood. Trust = -I(s) where s includes fear. Experiencing the Present = -I(s) where s includes time. Unconditional gratitude = -I(s) where s includes agency or responsibility for a positive outcome. Service = -I(s) where s includes action.

This model characterizes at least the above high virtues, also the unbound emotional states of emotional flow, serenity, bliss, and transcendence, and also the central emotional messages of each great religion. The results are consistent with many empirical findings from a variety of sources, traditions, and cultures, not least J.A. Martin's main finding in his work on Persistent Non-Symbolic Experience that transitions to higher levels are characterized by reduced level of self talk. This paper reviews the $[I]$ model, its relationship to math, its ramifications and explanatory role in human emotion.

Keywords:

emotion; cognitive model; logic; identification; inhibition; egotism; humility; forgiveness; victimhood; fear; time; now; trust; gratitude; conditional; service; action; work; flow; serene; blissful; transcendent; religion; morality; PNSE; mathematics

Model Type

At a conference on mathematical psychology some words about math and psychological models seem appropriate. This model of (ir-)rational emotion is symbolic, cognitive, and logical; and also consistent with but not specifically advancing process and neurobiological modeling as well as quantitative

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or numerical modeling. Mathematics in psychology, qua numerical valued variables in equational expressions quantitatively simulating the patterns of activity of psychological systems, is NOT what I particularly aim at here. The proper understanding, or math, of a psyche is what is does, how it does it, and what quantities must be understood to make sense of it. "What it does" implies a logical functional structure, definable in terms of the logical tasks it performs. "How it does it" is a matter for mechanistic empirical science, which we may call, biology, which has free rein to discover arbitrarily complex, or simple, underlying systems that perhaps emergently solve the logical problems imposed by natural selection or logical patterns behaviorally observable. "What quantities must be understood to make sense of it" are matters of quantitative measurement at both levels of mechanism and system logic; one may consider these quite subordinate to getting the structure of the model right, or in a weighted sum of all model structures, the weights measured for each structure are quantities representing which model is more true than which other.

Here, a discrete-category based logical system is offered in which the phenomena of rational and irrational emotion can be minimally represented and intuitively understood, such that simplicity, depth or insight, and breadth of understanding are achieved.

What is the correct level of abstraction? Very.

Uncontroversial Background

I take it as uncontroversial that motivated or emotional organismal behavior can be analyzed as operating through certain logically distinguishable levels and information formations namely that: some perception function or process P, operating on the organismal inputs O, generates a factual model of the situation S, which provides a basis for emotional evaluation E, which generates an emotional assessment A, which then is executed by the emotional implementation system X. $O \rightarrow P \rightarrow S \rightarrow E \rightarrow A \rightarrow X$. These may be modules or functions (P, E, X) or data sources or structures (O, S, A) or merely our analytic distinctions applied to a process of unknown internal complexity which nonetheless emergently and jointly solves the logically separable problems we understand separately and see as coherently solveable in this analytic framework. Feedback going the opposite direction from the main flow is not ruled out, since perception is not just bottom-up data flow and categorization but is also guided by

emotional or motivational framing, thus part of *X* is also to guide *P*, but what we may call the primary and logical flow in environment-responsive processing and behavior is shown here, from what is happening in the environment to what the organism somehow decides to do about it. The primacy of that latter direction is ensured by Darwinian selection, which surely will not select for organisms which fail to respond appropriately to their variable environments, that is, competently handle information flows in this primary direction.

So far, so rational. Yes, every evolved organism has survived under an eternal stochastic process of selection for optimal, or at least better than insufficient, prioritization and internal resource recruitment/coalignment. Motivation is always a target of evolutionary selection. Indeed, every evolved capability must evolve within, or further evolve to acquire, an appropriate inhibition system which limits its operation to those occasions where it is actually useful, or at least not harmful, for by an evolutionary tautology misprioritizing can lead to removal.

Thus for organisms to represent their relevant environment in terms of relevant fact and for them to convert that knowledge into motivated internal structures that appropriately respond thereto is mere adaptive functionality under the lethal logic of evolutionary selection. It is rational, that is, bound to circumstances, and for good reasons. Every motivated organism had better have good reasons for it (their current motivations); and, they all are (motivated), if only to sleep.

Claim: $[I_p(s)(p')]$, where *I* binds *X*.

To capture human irrational psychology in this so-far-uncontroversial and indeed rational analytic framework, we add an optional element, $I()$, and assert an emotional function, Binding, associated with that element.

The optional element is inserted after *P* and before *X*, is Identification, written symbolically as $[I]$, or $[I(s)]$, the optional process or mental activity of identification. "I(s)" is a symbolic representation of that particular activity of the organism which is the internally understood assertion that some element or aspect, some character or characteristic, of the situation *s*, characterizes Self.

For example, 'here's a game', 'the game has a winner', '*I* am the winner'.

Let *S* = game; players-in-game; winner-among-players; ..., then some information-processing bit inside us proposes, and then holds onbb to, as its belief, the idea we might formally represent as *I(S*.game.players.winner).

As a cover term I'll write $I(s)$, or sometimes just *I*. To emphasize optionality, one may write $[I(s)]$ using brackets.

Meaning

What is this thing here proposed?

I(s) is on the one hand a logical proposition with perhaps some truth value in some semantic or world or subjective-world model, and on the other hand it is an activity of a particular, subjective, information processing organism asserting the proposition which, during the temporarily continued moments of its active assertion, constitute the knowing or at least opinion-holding of the organism.

$I()$ is also a logical merger function, operation, or assertion, which is utilized in grammar by the pronominal suffix "-self", which for example in "He loves himself", logically merges the subject role bearer and the object role bearer, so that instead of two role bearers in the sentence, there is only one: The same person that loves is the one that is loved. Similarly, in "I won", the winner of the game, on the one hand, and the internally represented self, on the other, are merged as one, according to the opinion of the organism about itself. One could write $I_p(s)(p')$, where *p* is the perceiver, and p' is the perceiver's mental model of the perceiver, and it reads, *p* Identifies (some aspect of the situation) *s* as characterizing p', which *p* considers to be identical to p; thus *p* and p' are asserted to be merged or understood as being the same.

To this system add the emotional function of Binding to this phase $I()$. That is to say, whatever the emotional consequences may be, of having that particular character or characteristic, s, when the organism identifies with or as s, then the emotional system is Bound to the feeling associated with that character or characteristic.

Binding

Binding is an evolutionarily beneficial function for an organism developing the capability of abstractly, which is to say, impersonally, representing circumstances, actions, plans, and outcomes, because without binding those represented elements to powerfully motivated, appropriate behavior, the abstract calculations might be first irrelevant to and second ignored by the organism, therefore unused or providing no adaptive benefit. Bound, emotion serves the mind, so that then the mind's reveries may enhance survival. In short:

Identification binds emotion.

Discussion

Innumerable ramifications and consequences flow from this small addition, these simple tweaks, of an uncontroversial baseline model of emotional processing. We hereby capture the positive essence of the high virtues and emotions, the central emotional teachings of each great religion, the essential insights of high performance sports psychology, the experience of the non-downregulated emotional states of flow, serenity, bliss, and transcendence, which are situationally delinked, or unconditional.

All you need to do to achieve these is to Not do this optional, and emotionally binding, Identification activity, which then leads to your emotional system no longer being bound. Therefore it is free to experience flow, to fully attend to the moment without the deleterious interference of self-talk, free to enjoy peak, unlimited emotional experiences of meaningfulness and of overflowing joy and acceptance. In the religious terminology, this is the unbounded experience of God or divinity. A firehose of emotional power is available at the

drop of a hat, or rather, of the ego, because the heart, everyone's heart, is capable of great great emotion, undying love, eternal hope, the most profound sense of significance. Yet the action which generates or controls such experiences is this non-action, indeed the non-action of an action which humans consider to be their bounden duty to continuously carry out, namely to track the progress of their personal story, so that they know how to feel (because one knows what "I am"). Only the cessation of that seemingly dutiful action releases the irrational, rather non-situational, unrestricted emotional flow state. We feel it is impossible. Yet it is easier to do it than not to, since it is itself a non-doing.

That's the model: P E [*I*] X. And the definition of the bound state is PEIX or P-E-I[s]-X, and of the unbound state is, perhaps, PEX, or PE/I,X, or ¬I or $\forall x \, \neg I(x)$. Write it as you like, to emphasize what you want to communicate.

Is this math? It's really notation, which math shares, and which brings the benefits of consistent and unambiguous reference to a real, true, underlying pattern or process, despite the many ways it maybe described, which is to say it (hopefully) captures the right essence at the right level of abstraction, and in any case offers the possibility of error and therefore correction and thus progress.

PE[*I*]X is a symbolic model. It could be considered as a process model — but I am careful to avoid claiming that its layers are explicitly mapped to layers of neurobiological processing, preferring to calling it an analytical framework. But [*I*] does have empirical content, which any subjective perceiver, such as yourself, I claim, would aver. Do you not think of your self as having some particular character or characteristics in the ongoing drama of life? Do you not carefully watch as your story evolves, and do you not find that your emotional state follows the achievement or non achievement of your goals with your subjective world? I won? Feels great. I lost? Feels terrible. I think you are with me, depending on your actual identifications.

Another aspect of mathematical science is also found here: single, simpler, deeper forms are found to underlie and characterize a variety of surface-visible patterns. There is a sense that the right idea has been revealed, checking in with personal experience and intuition as well as teachings of others and observations of the untaught.

Ramifications

Apply ¬I(S) to *S* where

- *S* is action. This defines service.

- *S* is social status calculation. This defines humility.

- *S* is time. This defines the Now.

- *S* is a victim story I am starting to give up. This defines forgiveness.

- *S* is a blessing or benefit without an obligation. This defines unconditional gratitude.

- *S* is fear. This defines trust.

- *S* is suffering. This minimizes pain.

- *S* is any limitation of self. This defines liberation.

- *S* is thinking. This defines meditation, devotion, worship, song.

- *S* is my own agency, responsibility, blame. This defines inner surrender.

My adviser the great Mark Liberman at Penn said to me, when two things that seemed to be different are after a deeper scientific insight revealed to be underlying lay the same thing, that is a great day for science. Today is a great great day in science.

Explanation

In math the goal is theorems. What theorem derives from this model and its many assertions? Unbound also means unlimited; so The flow state consequences of non-identification are (when not dysfunctional) positive, in fact, transcendently positive emotional states. From this general feature follows, like a theorem, this quality which, wouldn't you agree, explains why the wisdom traditions of humankind can be summarized as teaching this particular point: identification binds, therefore live non-egotistically. Why? Because that is the path to bliss, serenity, transcendence, and flow, to the maximum sense of meaningfulness, to pure relief, to an unbounded feeling of connectedness. Wouldn't anybody with any wisdom recommend that to his or her followers? This follows from the optionality of Identification and the fact that Identification Binds emotionally, and that being unbound is of high, perhaps the highest, value.

Acknowledgments

References Instructions

If I were more an academic I should have references. It seems time to take an official class on psychological science. See TomVeatch.com/uw/psych511 for that, which shows a few further steps toward experimental validation or rejection of [*I*] theory.