Sociology 3308: Sociology of Emotions

Prof. J. Scott Kenney

Lectures 5 - 6: The Psychology of Emotions

There are a number of perennial problems in the study of emotions - causing recurrent discussion, divergent theories, and stimulating considerable research. In many respects, these problems define the psychology of emotion. Today I will discuss these problems as follows:

1. How we define the task of the psychology of emotions;
2. How we define an emotion;
3. How we distinguish different emotions and the elicitors of emotion;
4. Defining the boundaries of emotion;
5. The relationship between emotion and motivation;
6. The nature-nurture debate and emotion;
7. The relation between emotion and reason; and
8. The functions of emotion.

1. Defining the Field of Emotion Study:

What is an emotion? Ultimately, certain phenomena have imposed themselves, requiring a designation and an explanation in this respect. These include feelings, shifts in the control of behavior and thought, involuntary and impulsive behaviors, the emergence and tenacity of beliefs, changes in the individual's relationship with the environment, and physiological changes not caused by physical conditions.

Feeling is a striking phenomenon, a different type of experience from others. Yet, this was not the only thing motivating early discussion of the concept of emotion, perhaps not even the most prominent. For example, there was the fact that salient events intrude upon - and interrupt - goal directed behavior and thought. They may also elicit unplanned behavior and thought, "affecting" the person. Terms like *pathema* (Greek), *affectus* (Latin), and *passion* (French and English) all indicate some sort of passivity and control of behavior that is contrasted with action. Such intrusions often were extended to desires, thoughts, plans, and behaviors that persist over time, and may lead to performing actions regardless of costs, obstacles or moral objections.

Yet another phenomenon that comes up is that the individual's relationship with the environment and other people often changes - leading the person to draw back, turn away or approach with eagerness. In many cases such changes appear due to the *meaning* of some aspect of the environment rather than to its physical characteristics.

A third phenomenon consists of recurrent patterns of behavior (e.g. smiling, laughter, weeping or violent outbursts) which frequently accompany changes in relationship, and appear predictive of future behavior (e.g. smiling = friendly conduct; angry outbursts not).

Finally, there are the phenomenon of bodily upset, along with disorganized behavior and thought. These are what led Descartes to the term “emotion” itself (derived from a French word meaning “riot” or “unruliness”).

All four of these phenomenon require explanations from “within” the person. For psychologists, they demand hypotheses about possible causal factors. *Whether taken as feeling or just as some inner state or process*, emotion fulfills the function of rendering the phenomena *intelligible* and their consequences more *predictable*.

For example, the notion of emotion fulfils the role of explaining discrepancies of various sorts. For example, different people react differently in the same situation, and the same person may react differently to similar situations on different occasions. People hold tenuous beliefs in the face of contrary evidence, and sometimes act differently than they say they will. Emotions allow us to hypothesize reasons for such behaviors.

Ultimately, then, the sources for the concept of emotion include a variety of phenomena:

- feelings
- shifts in the control of behavior and thought
- involuntary and impulsive behaviors (including expression)
- the emergence or tenacity of beliefs
- changes in the relationship with the environment
- physiological changes not caused by physical conditions

All of these usually occur in response to external events, the person’s actions or thoughts. They usually have appreciable consequences for the person’s goals or conduct. They also tend to occur in conjunction with each other, leading to the assumption of emotions by the individual. These are what the psychology of emotion tries to deal with.

2. The Task of the Psychology of Emotion:

The task of psychology is to analyze these states and to *explain them at the level of the individual.* Psychology seeks explanations of emotion in terms of cognitive, motor, and processes that are attributes of individuals, together with their capacities for goal setting and planning, their attentional and energy resources, and the like. These include the various kinds of information that such processes have to work with and that are stored within the individual (e.g. innate sensitivities, stored facts, cognitive schemas, habits, etc.)

The psychology of emotions also considers the individual’s dynamic interactions with the environment. These bring in sensory stimuli and how they are taken, the effects of the environment on how well these are perceived, effects of the individual’s actions on the environment and their feedback, changes over time in both the environment and the individual, and the individual’s anticipations concerning all of these.

Psychological explanations are thus composed of three terms: (1) the structure of the individual; (2) stored information; and (3) dynamic interaction with the environment. How emotional phenomena emerge from what corresponds to these three terms raises several problems. For example, there are many ways that one might emphasize one or another, and the fact that each plays a role gives little guidance as to their explanatory weighting. One the one hand, assumptions of basic emotions or innate, prepared stimulus sensitivities weigh heavily in favor of (1) and (2) as opposed to (3). Conversely, the hypothesis that all emotions are variants of very general affect and arousal mechanisms, or result from a general sensitivity to goal interruption, emphasize (3) over (1) and (2). In one type of explanation the emphasis is on complex structure; in the other a complex environment.

Theorizing generally tries to find an optimal balance between structure and adaptation to information. Without unnecessarily complicating things, what is considered an optimal balance depends on the empirical data, as well as on the investigator's overall perspectives and taste. Within those aims, there are still important differences in the kinds of explanations being sought. One can seek explanations in terms of intentional aims, subject-object relations, and the meanings of events. One can also look for explanations at the psychological or functional level (e.g. mechanisms/ consequences). And one can look for them at the structural level (e.g. neurophysiological and biochemical processes). These various modes of explanation coexist in psychology and, in principle, are mutually compatible.

These different modes also leave room for quite different explanatory approaches. One may seek regularities or laws dealing with general relationships between variables (e.g. anger results from frustration). Alternatively, one may simply seek explanatory rules with a more limited scope subject to unspecified restrictions (e.g. these may be read into contexts).

3. What is "an" Emotion?

Whatever type of explanation chosen, it is not fully obvious what the phenomena to be explained are. Observable phenomena can be described and analyzed in very different ways and at very different levels. Thus, the recurrent discussion and divergence of theories. Efforts to describe an emotion in the sense of a type (e.g. joy or anger) illustrate very clearly this problem of choosing one's level of description. Some theoretical approaches may focus on one component (e.g. feeling or physiological arousal); others describe emotions as sets of components with a deterministic or probabilistic structure. Some may view emotions as states, others as processes ranging from appraisal to behavioral response. Jealousy, for instance, can be understood to refer to a particular feeling, or to the process that runs from the appraisal of a particular 3 person constellation as a threat, to feelings of anger or distress, and to the desire to do something about the threat.

An important difference concerns the level of conceptualization of emotions that is considered optimal. Emotions can be viewed primarily as intrapersonal states (e.g. feelings, states of arousal, or activation of motor patterns). They may also be viewed as interactive states involving the subject, an object, and their relationship. The former approach abandons or minimizes the intentional nature of emotional experience; the latter does the same for physiological factors.

Psychological attempts to define “an” emotion in particular instances runs into similar problems of definition and analysis. It matters, for example, how long one thinks emotions last, whether they are seen as fast emergency provisions, for example, or something more enduring. Similarly, it matters whether one sees emotions as transactions dealing with a particular issue, or something defined by a particular core relational theme or overall appraisal (e.g. loss or threat). Still other possibilities include describing them at the level of the prevailing mode of action readiness, or at the level of elementary emotional phenomena such as facial expressions or physical arousal.

When subjects themselves are asked to recall an emotional instance, they usually report an episode at the transactional level - ranging from 5 seconds to several days. During this episode, appraisals may change and different emotions co-occur or succeed each other. On the other hand, if “an” emotion is defined by the occurrence of a particular facial expression, then emotions last for 5 seconds at most.

Which level one selects as representing an emotion is largely arbitrary and should be no topic for disagreement. Emotion units as defined at higher levels are usually complexes made up of these more basic processes. As such, they form the building blocks or ingredients for any theory of emotions. Analyses at different levels are thus not necessarily incompatible with each other. However, care must be taken to make sure that the assumptions underlying analyses at different levels leave room for each other.

4. What are Emotions?

The question remains whether the phenomena for which the word “emotion” is being used include a class of events with sufficient specificity and functional unity to justify a single concept. Moreover, how are these distinct from cognition or conation? Specificity and unity of “emotion” are commonly assumed, but this is not necessarily the case. With regard to the former, James assumed that emotional experience is no different from any other behavior called forth by key stimuli and emerging from the cerebral cortex. Landis and Hunt argued that there is nothing specific about emotional experience, and that it partakes of the nature of a judgment.
Duffy simply subsumed emotion under an organism’s level of activation.

Similarly, one may deny the unity assumption. How do reactions involving goal directed action (e.g. anger) have anything in common with mere, reactive excitement? Here it is argued that the various emotions may not derive from shared mechanisms.

Ultimately, little agreement exists among psychologists about the features of emotions that might characterize unity and specificity. Indeed, while several rather specific features have been posited, these define overlapping but non-identical sets of phenomena (e.g. feelings of pleasure and pain cannot be readily reduced to bodily sensations or cognitive judgments). Yet, affect is often evaluative, indeed it introduces value to the world of fact. To explain the arousal of affect, then, one has to assume some process that turns a simple event into an evaluated event (e.g. appraisal). This may be automatic or involve active cognitive assessment of a stimuli. One

influential view (Lazarus, 1991) has it that emotions are the results of appraising events as promoting or obstructing one's well-being, concerns, motives, or current goals.

Other authors have given the central place to desire, or the impulse to act, implying assumptions of forms of action instigation and action control that are neither automatic, habitual or planned. These ideas are among the main reasons to consider emotions as "affecting" the individual. Impulsive action instigation, in turn, requires assumptions about the psychological apparatus that are unnecessary in the explanation above. It sets emotion apart from cognition and conation. Emotions here are viewed as processes involving involuntary, non-habitual action control or "action readiness." Impulsive action instigation is conspicuous in certain reactions, such as desire, surprise or amazement, that a definition of emotions in terms of affect leaves out. These ideas thus delimit overlapping but non-identical domains.

Another matter to consider is the supposed involuntary nature of emotions: feelings traditionally are not seen as something produced by the individual, but reactions to selected stimuli. Current psychology is critical of this, and posits some form of agency in response. However, like "will" such concepts are not easy to fit into the cognitive science perspective. All the same, assigning, accepting or carrying responsibility does not just seem to be arbitrary, and this produces emotional and ethical implications.

What specifies and unifies emotional phenomena may not be one or the other of the various components, but a process that connects them. For example, one may reserve the word "emotion" for states of synchronization of the various components, or to occurrences of affect that produce a change in action readiness (all hunger is unpleasant, but would be considered an emotion only when it leads to restlessness and an urge to find food). Similarly, emotions can be restricted to the various response components or their patterns when elicited by cognitive appraisal. Such redefinitions meaningfully focus on those constellations of factors that involve some impact on the individual's life or behavior - restricting the domain but making it more coherent.

Yet, just as there are arguments to restrict the domain of emotion, others urge psychologists to enlarge it. Some, for example, distinguish emotions, emotional attitudes and sentiments (being scared by a dog and being afraid of dogs). Emotions have a limited duration, but sentiments may persist over a lifetime. Nevertheless, both may have a similar structure (focused on an object, its appraisal, accompanied by a propensity to act). Both may affect one's behavior (e.g. avoiding places where dogs are likely), and attitudes may turn into an emotional incidents at the slightest provocation. Thus, given these similarities, the argument is that they are but variants of the same thing, and may be placed in a single category.

All of this discussion involves the definition of emotion, its difficulties, the debates and divergences in emotion theory surrounding this issue. Yet, these are not merely unprofitable matters of academic taste, because whether a person has or does not have an emotion is a meaningful issue that is hard to avoid (e.g. Can they be faked? Are people responsible or not?). It is better to replace the question of whether or not a given state is an emotion by the more analytic question of which of the various components (appraisal, action readiness, control precedence) are

- or are not - involved.

5. How are we to Distinguish Different Emotions?

What makes one emotion different from another has been a prominent research question, and has lead to a search for information that might account for this. Such sources can be found in any of the components or in their combinations. In the past attention was focused on supposedly irreducible qualities (e.g. patterns of physiological autonomic response; feeling states as defined by affect and state of activation). Over the last several decades has emphasized other possibilities such as states of action readiness and their awareness, overt or covert motor behavior, and felt patterns of appraisal. Distinctions also come from the type of eliciting event or core relational theme.

Which of the components should be preferred in making distinctions between emotions? The answer depends on the assumptions one makes about the relationship between the components. Three kinds stand out: (1) those that assert one component has causal priority over the others (e.g. physiology); (2) a view holding that there exist hypothetical dispositions that underlie all components together (e.g. basic emotions/ functional systems); (3) emotions as more or less unordered collections of components, activated in different combinations by different eliciting events and given various ecological, cultural or linguistic labels.

Several investigators have taken this third option, which seems better able to deal with cultural differences in emotion categories, as well as with differences in the precise semantic content of similar categories in different languages. It also deals with appreciable differences in the structure of given emotions that appear to exist within a culture. On the other hand, a basic emotions view is better at understanding uniformities of emotion across cultures, and may provide for differences by noting that the precise antecedents may vary (e.g. each component may have its own facilitating conditions in addition to being called up by a central emotion process).

Yet, all of the above assumes that these labels reflect structure among the phenomena in question. A different approach is possible: emotion labels may reflect prototypes or scripts of *cultural* origin that to some extent prescribe the phenomena. This social constructionist view argues that one behaves as the emotional script for a given circumstance demands. The strong form of this view is implausible given evidence suggesting a biological basis for emotions. However, it does point to one of the forces that might shape the patterns of phenomena, and the potentially formative role of emotion labels. Labels may not only reflect, they may signify the significance attached to them in the first place. This may signal a major entry point for processes of emotional regulation.

This multi-component nature of emotional phenomena reflects a looseness in structure that fits viewing emotion categories as fictions. The same can be said for distinctions between different categories of affective phenomena such as emotions, feelings, moods and sentiments. These reflect a deeper and more general issue: using substance concepts rather than function concepts to understand emotion: the former are static, reflecting states of things; the latter allow

change, reflecting processes. In much work, emotions are treated as nouns, states or things - reflecting our language - but for psychological analysis at a functional level, it may be better to treat emotions as the varying phenomenal results of processes, reflecting verbs (e.g. “one is joying”). From this perspective, the very notions of emotion and of the different emotions may be abandoned. One can describe the various phenomena directly in terms of the processes and avoid needless discussions about categorical boundaries (e.g. mood vs. emotion) as processes are graded in strength, and making cuts at certain levels of strength is arbitrary. Replacing categories by processes may be extended to emotions themselves and even to their components (e.g. assemblies of separate facial expression components). These components can be defined functionally in terms of types of actions (e.g. attention) and linked to appraisal component processes.

Employing the process level rather than the category level turns the relationships between components into a subject for unprejudiced empirical research on a number of questions: which processes are linked with others? Which linkages are due to joint response to the same stimuli, and which others are associated? Similarly, this approach is relevant to the issue of which phenomena belong to emotion itself, and which are its antecedents or consequences? (e.g. is expression a consequence of emotion, or part of it?) Indeed, this latter issue seems to lose much of its sense when “emotion” is considered a collection of processes instead of a single, integrated entity. It adds further questions, such as how stimuli or thoughts determine particular processes.

An additional question that emerges out of thus reframing the issue is to what extent processes that logically follow the component processes act back upon them. Emotion processes are probably not linearly organized, and a nonlinear dynamic model may be more adequate (e.g. facial expressions may influence others' responses, which, in turn, may affect the subject's original facial expression). Indeed, this may also account for internal feedback from the subject's actual or anticipated response.

Finally, there is the issue of how solidly given emotional sub-processes follow each other. This really asks how strongly secondary conditions such as personality, mood, the state of the organism and coincidences in the physical and social situation determine the appearance of a particular response.

6. What are the Relations between Emotion and Motivation?

The relations between emotion and motivation constitute another perennial problem for psychology. This is hardly surprising, as the term motivation has been as problematic as the term emotion. One can view motivation as a cause of emotion, as one of its major aspects, and as one of its consequences. Some have argued for an abandonment of the emotion-motivation distinction, but both notions can be kept apart by the distinction between dispositions and occurrent motivational states. In the former there is a tendency to readiness, in the latter there is action readiness that arouses behavior and drives it forth in response to urgency or an event promises its satisfaction (e.g. an upsurge of lust). Some have termed dispositional readiness instincts; others speak of emotions as the readouts of motivation; still others speak in cognitive terms of “goals,” with emotions the responses to their achievement or frustration.

Some have argued that emotions such as fear and lust, and motivations such as the desire to escape or possess, are related as causes and consequences, yet this separation has appeared artificial to other others. Again, the problem largely disappears when one conceives both domains in process terms. It changes into the question of under which conditions action readiness change does or does not depend on upon prior appraisal or feeling (e.g. is perhaps triggered directly by stimulus perception).

Finally, there is the question of whether every emotion involves some motivational change (e.g. joy and sadness do not necessarily have a motivational goal). Wider conceptions may seem needed to bring these into a common perspective with fear, anger, etc.

7. What Elicits Emotions?

Emotions are generally regarded as being caused by external events or by thoughts, apart from physiological causes such as biochemical changes and neural discharges. Defined as responses to events, the question arises as to the nature of those events that are the antecedents to emotion. Can they be reduced to simple causal principles?

There have been several approaches to this question. One proposes that emotions are responses to certain unconditioned stimuli, while others may be evoked by conditioning. This classical behaviorist proposal only appeared to account for a fraction of what actually elicits emotions.

A second approach came from later behaviorism, considering emotions to be aroused not by particular stimuli, but by contingencies consisting of the actual or signaled arrival or termination of pleasant or unpleasant events. This has been augmented by a consideration of the subject's coping resources in the face of such contingencies.

A third approach gives the subject-event interaction a still stronger role in three ways: (1) promotion or obstruction of the subject's concerns; (2) how these may differ from one subject to another; and (3) a focus on how the subject has appraised the relevance of events to these concerns. Ultimately, in this approach, emotion arousal is viewed as depending on the individual's cognitive or associated appraisal processes.

This focus on emotion arousal being determined by the meaning of events for the individual's concerns has a long and distinguished intellectual history. Nevertheless, it has always encountered problems. The evidence for concerns often emerges only after the occurrence of emotions. Another problem is that people's actions are often motivated by the goal of achieving pleasure and avoiding pain. Finally, the structure of people's concerns is largely unclear here. Clarification is thus needed.

In addition, the various approaches noted here fail to account for the cognitive emotions of surprise and boredom. Perhaps it would be better to modify the concern-satisfaction view by arguing that many emotions result from meeting or thwarting expectancies.

The various approaches thus elaborated may not be mutually exclusive alternatives. Emotions may spring from many sources.

8. Nature or Nurture?

Here we come to the question of how much of emotion can be seen to be the result of innate mechanisms and biological processes, and how much is the result of individual learning in the social environment.

That emotions have a biological basis is something that probably nobody contests. The evidence for neurological and neurochemical mechanisms is fairly compelling, but their precise nature remains unclear (e.g. do the limbic mechanisms control motivational states, impulses and action readiness or do they control integration of behavioral patterns/ affective sensitivity to particular stimuli?) In any case, the capacity for affect is rooted in the human constitution, since emotion cannot be functionally nor phenomenologically reduced to cognitions and judgments. The processes of appraisal themselves rest upon innate capabilities. Moreover, there are strong indications that there exist innate dispositions related to specific emotions, or at least to forms of action readiness such as satisfaction seeking, hostility and self-protection (e.g. neuropsychological findings, action patterns, facial expressions). Also, one can make a strong case for the universality or near universality of the contingencies that typically elicit those emotions, and the near universal lexical terms in different languages.

By itself, however, universality does not prove biological origin. Major emotions may correspond to universal contingencies or core themes such as threat, loss or success, but these may alternatively be seen as universal occasions for learning, contexts for universally similar problem solving, or dynamic compilations of action patterns (e.g. revenge may not be innate, but a response to the fact that harm is universally painful and people are - or may become - aware of common things that may modify the behavior of attackers, such as kicking, shouting, throwing things).There is thus more than one way to explain instances of universality.

Biological dispositions and cultural determinants are neither incompatible nor mutually exclusive. It may only be useful to stress that the role of cultural differences in emotional phenomena depends to an important degree on one's level of analysis (e.g. shame differs in Western and Arabic societies, but both may represent the same sensitivity to social acceptance and the same motivation to correct/prevent deviations from norms). Universality may lurk behind cultural specificity without detracting from the specific meanings of each cultural form. Conversely, culture determines not only specifics, but also universals (e.g. sensitivity to social acceptance is also a cultural value). Symbolic capacities and social interactions penetrate every phenomenon.

Still, it is usually not very clear how biological dispositions and cultural determinants interact. It is also unclear how emotions that have an important cognitive component (e.g. regret) relate to biological mechanisms and basic emotion disposition. These have to be further worked out.

9. Emotion and Reason:

The traditional contrast of emotion and reason is still very much with us. Reason was often associated with logic and rational solutions; emotion with confusion, being led astray, and behavior that one would later regret.

Such contrasts have been mitigated in modern theory. For example, the renewed emphasis on the role of cognition in emotions, the recognition of the "rationality" of emotions (as aids to rational behavior), and the functional nature of emotional reactions themselves. Indeed, emotional behavior is often considered appropriate to the eliciting event as appraised by the person. Yet, contrasts between emotion and rationality remain. For example, affect can be aroused without a cognitive antecedent, to "prepared" stimuli, and to the conditioned stimuli in traumatic conditioning. Emotion, it is argued, does not always need inferences; nor do all cognitions that are relevant for well-being actually elicit or modify emotions (e.g. showing a person with arachnophobia that spiders are harmless rarely helps).

The irrationality of emotions is still there as well. That irrationality lurks in every emotion is suggested by the almost ubiquitous presence of emotion regulation and self-control. In such cases, rationality has an ally, built into the very emotion mechanisms, that serves self-interest at many levels (i.e. is not there merely to satisfy social conventions).

Emotions can also be irrational, in the sense of producing suboptimal results. They may be harmful in the short or long run (e.g. people in panic get crushed in the rush; stage fright spoils performance; rage may lead to childish behavior and upset relationships).

It is true that one can always think of some function for any behavior (e.g. stage fright = a show of helplessness that invites the audience's indulgence). Many emotions seem irrational only when the individual's appraisals are neglected (even though these at time themselves may be irrational). Explaining irrationality in this fashion suggests an irrational conclusion. Instead we are stuck with the conclusion that, whatever their possible functions, the disturbance of optimal functioning by emotions is dysfunctional and irrational. These issues may be out of fashion, but must ultimately be dealt with.

10. The Functions of Emotions:

The negative view of emotions dominated earlier theorizing in psychology, but nowadays emotions are being viewed as adaptively useful. Hence, the functional perspective now dominates. This is plausible because of biological data and evolutionary explanations. It is also so because the range of possible functions appears wider than only dealing with opportunities and threats that the individual faces (e.g. joy may serve readiness for new exploits, assist in recovery from previous stress, and invite others to participate; shame and guilt are powerful regulators of social interaction).

One has to be careful with functional interpretations because they exist in two varieties that are not always kept distinct. There are evolutionary and proximal functions. Emotions may have been functional in dealing with the contingencies that made them come into existence in evolution (e.g. sex serves the survival of the species). However, emotions may also be functional for what they accomplish once they are there (e.g. sex for pleasure and intimacy). Many emotions are functional in the latter sense, as contributing to social bonding between oneself and others and sources of human interest (e.g. guilt and grief).

The evolutionary perspective almost obliges one to see emotions as functional provisions, and such hypotheses seem to come very easily these days (e.g. anger is innate as it protects one's territory and offspring; apathy in grief saves energy). Yet, nobody was around during evolution to gauge these benefits against the corresponding costs of alternatives. Evolutionary hypotheses often resemble lazy thinking, failure to examine implications, or failure to consider alternative possibilities. Such possibilities include dynamic explanations where emotions develop on the spot as a result of their immediate material and social effects, and the notion that certain emotional phenomena may be chance offshoots of something quite different.

One may nevertheless grant that, overall, emotions are functional for adaptation. How can this be reconciled with their instances of irrationality and disturbance of optimal functioning? Some have tried to distinguish different types of emotion. Other explanations focus on limited resources for emotion regulation, exhaustion, or the fact that certain emotional predicaments are simply inescapable.

Many irrational for dysfunctional instances of emotion are due to a common feature of functioning: reactions that are in principle functional are being applied far beyond the contexts in which they are of use. Grief may be functional when it prompts,

say, a child's mother to return to the room, but may serve no purpose in bereavement (at least according to Frijda).

A further angle is that human intellectual and cultural development have outrun evolution. Emotions may have been adaptive for coping with the risks and opportunities of the savannah, and with the use of fists and stone tools. They may not be adaptive any more for dealing with present day interactions in our sophisticated, technological society. Present day anger and greed have become perversions because the emotion systems did not develop along with these cultural conditions. The psychology of emotions needs to examine this as well.

Concluding Remarks:

Will these 10 perennial problems in the psychology of emotion remain with us forever? Such problems are often not solved because they reflect particular world-views or limits in capacities for conceptualization. Perhaps the scope of these problems may be narrowed by achieving more insight into how their proposed solutions are related to each other.

Psychological explanations of emotional phenomena are sought at different levels. Answers to some questions may initially appear incompatible when in fact they are answers to different questions at different levels of the phenomena. They may actually complement each other.

Frijda argues, as well, that the study of emotion will be advanced when the processual model achieves more attention. Only the first efforts are being made to construct models of the processes of appraisal and the inner structure of goals, for example, and intentional phenomena should be clarified in terms of functionally defined processes. This will facilitate jumps between levels such as intention and neurophysiological processes.

All of this is important for advances in emotion research. There is no guarantee that categories of analysis at one level will project onto coherent categories at another level. Still, the relationships between explanations at different levels depend on each other, and it would be profitable if researchers in different areas and on different levels talked more to each other. For example, experimental investigators of emotions often know little about the social and cultural psychology of emotions and vice versa. This restricts the range of emotion elicitors considered. Similarly, students of the neuropsychology of emotion often know little about the contemporary psychology of emotion - frequently writing as if what causes emotion is an electric shock, and as the paradigm of motivation is "survival." To most psychological researchers, the limbic area is merely somewhere in the brain and the amygdala is an amorphous blob of tissue. There is no real reason why all this should remain this way.