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A COGNITIVE FRAMEWORK FOR MENS REA AND ACTUS REAS: THE APPLICATION OF CONTACTICS THEORY TO CRIMINAL LAW

M. Varn and Anoop Chandola

I. INTRODUCTION

Criminal law, like most other subjects, is part of today's interdisciplinary web where different fields may be combined to get a better understanding of a particular phenomenon. Criminal law, for example, has been greatly influenced by such fields as psychiatry and forensic science. It has also become commonplace for psychology and sociology departments to offer law related courses and degrees in specialized areas that combine social science and law (i.e., a criminal justice major).

This paper introduces a new theory called "contactics" which attempts to clarify and codify the elements that constitute a crime. The theory of contactics is closely related to cognitive science in that it deals with complex mental processes that can be used to explain the formulation of the basic elements of a crime such as mens rea and actus reas.

II. THE SIMPLE MODEL OF MENS REA AND ACTUS REAS AND ITS LIMITATIONS

In countries that follow the western tradition of law a criminal offense consists of mens rea or mental state and the accompanying actus reas or act.¹ Crimes may be further analyzed by observing the element of causation.² The mental state and act must concur to establish a criminal offense³. Also an act must be voluntary.⁴

1. 22 C.J.S. CRIMINAL LAW, § 31 (1955)

2. See C. TORCIA, WHARTON'S CRIMINAL LAW 147-164 (1993)

Corpus Delecti is also sometimes discussed as a basic element of a criminal offense. See R. PERKINS, CRIMINAL LAW 97-100 (1969). Corpus delecti literally means, "the body of the crime". Generally the basic ideas underlying corpus delecti are that every crime has a result (i.e., dead body), someone is responsible for that result (i.e., the result was not accidental), and the identity of the accused. The principal behind corpus delecti is that the defendant's confession standing alone is not sufficient proof of his or her criminality without some other corroborating proof of his or her criminality. See W. LAFAYE & A. SCOTT, CRIMINAL LAW 16-17 (1972).

Improper desires alone are not sufficient to constitute a crime.⁵

There are four mental states that are recognized within criminal law; they are intent⁶, knowledge⁷, recklessness⁸, and negligence⁹. There are also strict liability offenses which require only a defined criminal act without being accompanied by any mental state¹⁰; these offenses, however, tend to be less serious offenses.¹¹ A crime, however, cannot generally exist without a mental state.

The act is the other essential element of a crime. The Model Penal Code defines an "act" or "action" as a voluntary or involuntary bodily movement.¹² Only a

3. R. PERKINS, *supra* note 2, at 834

In practice one logically looks at the act first and then the mental state. The mental state is an internal phenomenon that can only be judged by the trier of fact by first looking at external evidence.

4. W. LAFAVE, *supra* note 2, at 177.

The Model Penal Code defines a voluntary act in the negative as follows:

(2) The following are not voluntary acts within the meaning of this Section:

(a) a reflex or convulsion;

(b) a bodily movement during unconsciousness or sleep;

(c) conduct during hypnosis or resulting from hypnotic suggestion;

(d) a bodily movement that otherwise is not a product of the effort or determination of the actor, either conscious or habitual.

MODEL PENAL CODE, § 2.01 (2).

5. See LAFAVE, *supra* note 2, at 178.

6. The Model Penal Code applies the term "purposely" instead of intent. Purposely is defined as follows:

A person acts purposely with respect to a material element of an offense when:

(i) if the element involves the nature of his conduct or a result thereof, it is his conscious object to engage in conduct of that nature or to cause such a result; and

(ii) if the element involves a result of his conduct, he is aware that it is practically certain that his conduct will cause such a result.

MODEL PENAL CODE, § 2.01(2)(a).

7. The Model Penal Code defines knowingly as follows:

A person acts knowingly with respect to a material element of an offense when:

(i) if the element involves that nature of his conduct or the attendant circumstances, he is aware that his conduct is of that nature or that such circumstances exist; and

(ii) if the element involves a result of his conduct, he is aware that it is practically certain that his conduct will cause such a result.

MODEL PENAL CODE, § 2.02(2)(b).

8. The Model Penal Code defines recklessly as follows:

A person acts recklessly with respect to a material element of an offense when he consciously disregards a substantial and unjustifiable risk that the material element exists or will result from his conduct. The risk must be of such a nature and degree that, considering the nature and purpose of the actor's conduct and the circumstances known to him, its disregard involves a gross deviation from the standard of conduct that a law-abiding person would observe in the actor's situation.

MODEL PENAL CODE, § 2.02(2)(c).

9. The Model Penal Code defines negligently as follows:

A person acts negligently with respect to a material element of an offense when he should be aware of a substantial and unjustifiable risk that the material element exists or will result from his conduct. The risk must be of such a nature and degree that the actor's failure to perceive it, considering the nature and purpose of his conduct and the circumstances known to him, involves a gross deviation from the standard of care that a reasonable person would observe in the actor's situation.

MODEL PENAL CODE, § 2.02(2)(d).

10. See LAFAVE, *supra* note 2, at 218.

11. See TORCIA, *supra* note 2, at 123-132.

12. See Model Penal Code, Sec. 1.13(2); Other theories in criminal law provide a more complex definition of an act that may involve analyzing the origin of an act, certain surrounding circumstances concerning the act, and certain consequences of the act. See LAFAVE, *supra* note 2, at 177-178. It appears that in expanding the definition of act to include looking at the circumstances and consequences of an act the definition of mens rea and actus reus may overlap. Therefore, by defining an act in terms of bodily movement the definition of mens rea and actus reus are kept distinct.

voluntary act, however, will be considered a sufficient act for a crime.¹³ The omission or failure to act in such situations where the law creates an affirmative duty to act and where the defendant is physically capable of committing the act also comes within the definition of actus reas.¹⁴

What is going on in the defendant's mind when he is in the process of committing a prohibited act? Let us observe the mens rea of a hypothetical defendant, Jack, who is about to commit the premeditated murder of Jane. For premeditated murder Jack must have the mens rea of intent in carrying out the crime. Intent, as defined in the model penal code, requires that the defendant have an instinctual understanding of physical and psychological laws. To illustrate this point, let us assume that Jack stabs and kills Jane. In Jack's trial for premeditated murder the jury would have inferred from the facts presented to them that Jack who had the objective to bring about Jane's death intuitively understood the laws of physics and biology to the extent that if he had a knife which he thrust into her heart from a certain angle, with a certain force, and from a certain distance, then her death will certainly occur. In this case the trier of fact may assume that Jack knew what he is doing.

To have the intent to commit a crime the defendant must have an understanding of the relationship of the self to the environment. Therefore, mens rea such as intent cannot be considered in a vacuum, but must also take into account the defendant's ability to understand cause and effect relationships (i.e., act X will lead to result Y). Intent, as defined in the model penal code, reflects that the defendant who is aware of the attendant circumstances must have the objective to cause a particular result and must be sure that the result will occur. Awareness of the attendant circumstances and how they can be manipulated to achieve certain results implies an understanding of cause and effect.

On its face, the model that consists of a mental state accompanied by an act is a simple explanation for understanding human behavior for individuals in the field of criminal law and presumably for lay persons such as jurors as well.¹⁵ For scholars in the field of criminal law, however, this simple model of mens rea and actus reas fails to explain the intricate mental processes that lead to complex actions during a defined criminal act. The failure to understand the complexities of behavior may sometimes lead to applying the simple model of mens rea and actus reas with unjust results in a criminal trial.

To simply define a crime as mens rea and actus reas is similar to defining

13. See LAFAYE, *supra* note 2. A, for example, may have the desire to kill B but if he accidentally stabbed B when he was experiencing a seizure then this would not constitute a voluntary act sufficient to constitute a crime.

14. See Model Penal Code, § 2.01.

15. Jurors may make the determination as to whether the defendant possesses the culpable mental state accompanied by the appropriate act to be guilty of the crime she is charged with. This, however, does not mean that jurors truly understand how the model of mens rea and actus reas is to operate in a criminal trial. To what extent jurors will understand jury instructions is questionable. See L. Severance & E. Loftus, *Improving the Ability of Jurors to Comprehend and Apply Criminal Jury Instructions*, 17 LAW & SOCIETY REV. 153, 153-154 (1982).

behavior as stimulus and response under the theory of behaviorism.¹⁶ The theory of behaviorism may be analogized with a black box which receives input and produces output. Behaviorism fails to provide an explanation for the complex processing that goes on within the brain. The field of cognitive psychology filled the void by not only dealing with the more intricate function of the human brain or mind, but also developed new theories of human behavior.¹⁷ Similarly, in criminal law the model of mens rea and actus reas does not provide a concrete definition of what these elements are and how they are linked with one another.

A basic question in cognitive or social-behavioral sciences is how do we make sense of human actions or behavior? In criminal law one may attempt to observe how a criminal act took place before it was understood to be "criminal" in nature. Such an observation requires an exploration of the causal relationship between a defendant's mens reas and actus reas. In other words, a defendant is assumed to have an internal state that leads him or her to commit an act that is allegedly "criminal" in nature.

III. BASICS OF CONTACTICS

Contactics is a new subfield within social-behavioral science that presents a theory of how the brain takes in information, processes it, and then reacts to the environment. In essence it is a human action theory. Contactics is particularly valuable in obtaining an in-depth understanding of the relationship between mens rea and actus reas. It explains this complex interaction between the individual and environment by utilizing a code-based theory similar to the code based theory in genetics which explains the evolution of an organism with a basic code of DNA. There is also a philosophy associated with the theory of contactics which is called "contactism" which will not be covered in this paper¹⁸.

Contactics provides a model to explain how an act evolves in the brain through the use of a basic code. The basic code transforms the "internal state" of the brain into an act. The "internal state" of the brain is an organization of items¹⁹. An item is anything selected arbitrarily by the brain that is not limited to physical phenomenon

16. Behaviorism is a theory that is associated with John B. Watson, its founder, and B.F. Skinner. Behaviorism holds that psychology as a science can study only observable behavior, namely stimulus and response. Behaviorists are interested in viewing how different kinds of rewards and punishments maintain or change behavior. See E. HILGARD, & R. ATKINSON, INTRODUCTION TO PSYCHOLOGY 5-6 (7th ed. 1979).

17. See *id.* at 6-7.

18. Contactism is the philosophical extension of the science of contactics. See A. CHANDOLA, CONTACTICS 57-63 (1992). This philosophy extends egalitarian principles to human contact. It is applicable when two or more individuals or groups are in contact for the purpose of fulfilling their objectives or interests. During such contact each side may attempt to achieve interests. During such contact each side may attempt to achieve its objectives with no fair or equal consideration for the interests of the other side. Contactism requires that all sides treat each other with fairness and equality. Only humans can practice contactism, hence their laws are clearly different from the laws of the jungle. When the two sides cannot enforce contactism on their own a third side may enter to enforce it. The courts are part of the third side. The concepts of fairness and equality which are an integral part of the American judicial system are embodied in the constitutional guarantees of fair trial under the Sixth Amendment, equal protection under the Fourteenth Amendment, and Due Process under the Fifth and Fourteenth Amendments of the U.S. Constitution.

19. See *id.* at 14.

observed in the environment, but also includes abstract things such as imaginary beings and concepts (i.e., names or words).²⁰ Each item makes an impression in the brain that is called the 'image'. The image is like a photograph the brain takes of items. An 'image' is an internal representation of the "item."²¹ For example, the brain selects an item such as "knife" which means that the brain has formed an 'image' of the item "knife".

The brain arbitrarily organizes only some of the countless items it is exposed to.²² Within a fraction of a second the brain can select a set of seven or eight items.²³ The images of the selected items are in contact or are bound together simultaneously. The binding of images results in an internal set. This internal set is called "situation".²⁴ A situation is a minimum coherent and cohesive cognitive unit or the complete set of 'understanding'. Note that hereafter when it is necessary to differentiate, "items" will appear with double quotes and 'images' with single quotes.

The 'image' always accompanies a role that the individual has selected to assign to an item.²⁵ Roles are not inherent in the items.²⁶ It is the individual who imagines or creates the roles in his or her head for each item in the given situation.²⁷ Thus, every situation is an internal picture frame or play in which items appear with roles in terms of images.²⁸ There are three basic categories of these roles which constitute the elements of a code. These three categories of roles are referred to as activity, activators, and specifiers.²⁹ Activators can be further broken down into the elements of doer, instrument, goal, recipient, origin, and base; these elements make the activity.³⁰ The code referring to these roles can be given the following acronym:

A DIG ROBS

A stands for activity, D is for doer, I is for instrument, G is for goal, R is for recipient, O is for origin, and B is for base (time and place), and S is for specifier.³¹ At least one activator, the doer, is necessary to use an activity. An item becomes an image when the item is assigned to or viewed with a role.³² So one item may, for example, be viewed as the doer of the activity while another item may be viewed as the instrument or means, and so on.³³

"Activity" is the central component in every situation.³⁴ It is like the nucleus surrounded by its participants who are playing a direct part in the activity.³⁵ All

20. *See id.*

21. *See id.*

22. *See id.* at 13-14.

23. *See id.*

24. *See* CHANDOLA, *supra* note 18, at 13-14.

25. *See id.*

26. *See id.*

27. *See id.* at 14.

28. *See id.*

29. *See id.*

30. *See* CHANDOLA, *supra* note 18, at 19-20.

31. *See id.* at 19.

32. *See id.* at 14.

33. *See id.*

34. *See id.*

35. *See id.*

participants other than activators are 'specifiers' because they add specification or modification to an activity or activator.³⁶ Specifiers may not be needed in a given situation.³⁷ But every situation must have an activity and at least one activator.³⁸

To gain a ready understanding of the part an item can play in an activity, the following six questions are proposed (Each question has its answer in parenthesis at the end).³⁹

Who does this activity? (the doer)

What are the means to this activity? (the instrument)

What is the aim of this activity? (the goal)

Who is the beneficiary of this activity (the recipient)

What is the starting point of this activity? (the origin)

What is the time or place of this activity? (the base)

These roles are internal aspects of the imaged items, and they set in motion or "activate" an activity.⁴⁰ Furthermore, these roles make it possible to express what has taken place inside a person's head in the form of an activity and its participants.⁴¹ The tacit logical understanding about any given act can be concluded as follows: if there is an act, then there must be an activity and its activators. Thus, in contactics, unlike other approaches, the act is understood in its homogeneous terms, namely activity and activators.

The roles and their expressions may be illustrated in a hypothetical case in which David intentionally stabs Jane. To perform this act David organized some things and put them in contact in his head prior to stabbing her with a knife. The activity he selected is stabbing. He is its doer, the aim or the goal is the woman, the instrument is the knife, the time is evening, and the place is the room where the stabbing occurred. Specification means 'this' particular woman and not any other 'woman' or a 'big kitchen' knife, not a 'small pocket' knife. Similarly, specifications to an activity can be added such as its timing or manner, e.g., 'past' or 'present', 'slowly' or 'quickly', and 'here' or 'there'. Such decisions on the activity, activators, and specifiers must be taken by David before he converts them into his physical act, or verbal act such as "I am going to stab you right now." The decisions in his head makes a situation and its verbal or non-verbal act makes its expression. Thus, for example, the sentence "I am going to stab you right now " is the conversion of the situation where 'stab' is the verb, 'I' is its subject, 'you' is the object, etc., referring to the activity doer, goal, etc. But he doesn't have to say a word and still do the act. Or he could have formed the situation, but never put it into expression or action in which case no crime is observable. The basic principle that "bad thoughts" alone are

36. See CHANDOLA, *supra* note 18, at 14.

37. See *id.*

38. See *id.*

39. See *id.* at 14.

40. See *id.* at 15.

41. See *id.*

insufficient to constitute a crime is well known in criminal law.⁴² After forming a situation, one may choose to express it, if expression seems feasible.⁴³ Since in the previous example David did express his situation he is alleged to have committed a criminal act.

In the previous scenario David's situations contain the mens rea and their expression represents the actus reus. Mens rea is the plan or understanding. Its representation as a criminal act is possible only when it is actually "done", or "said", or "written" with an understanding. Technically, understanding is forming a situation, acting out a situation is its material expression, saying it is linguistic expression, and writing it is materialized linguistic expression. An example of a material expression would be where Jane displays a knife in a threatening manner towards David. An example of a linguistic expression would be where David threatens Jane by stating, "I will kill you with this knife". Here either the combination of the material and linguistic expressions or each expression standing alone could constitute a crime assuming that the statutory elements of the alleged offense are satisfied.

So far we have seen a progression where an "item" such as "knife" is internalized into its 'image' as 'knife' and further expressed into its concept (word) as knife. This evolution can be represented as follows:

"items"-->'images'-->items/concepts⁴⁴

Here the underlined or italicized items slashed with concepts indicates its difference from its beginning stage indicated by "items" (in double quotes). The code processes the selected things as "items" (the input), then into 'images', and finally back into items or concepts (the outputs).⁴⁵ In a material expression the processed products are the items. In a linguistic expression the processed products are concepts. Once a concept is formed it can be reused in the process as if it were an "item." The process of selecting "items" and processing them into 'images,' and then expressing them into items or concepts again is an on-going phenomenon which one observes all the time in his or her waking state.⁴⁶ This process is called contactualization. Any item that goes through this process is, therefore, a "contactualized" stuff.

For example, the item "knife" is contactualized or evolved as the concept knife. A situation is an internal phenomenon, hence an experience, that can evolve or develop into its corresponding material or linguistic expressions only when the roles of each item associated with an activity are known to the person who has formed the situation.⁴⁷

42. See LAFAVE, *supra* note 2, at 178. It is also important to distinguish thoughts from speech. Speech alone may constitute an act. *Id.* It is also important to note that in contactics "thought" is not considered as a technical or scientific term since it is not analyzable, unlike situation which is analyzable as items put in contact with the elements of the conscious contact code.

43. See CHANDOLA, *supra* note 18, at 15.

44. See *id.* at 17.

45. See *id.* at 18.

46. See *id.* at 19-20.

47. See *id.* at 15.

Now that the mechanics of situation have been laid out its association with mens rea becomes clearer. Mens rea or mental state is basically a degree of awareness that one possesses of what results his or her conduct will lead to. This awareness is basically a set of situations. The expression of the situation is the actus reus. Any scenarios concerning the defendant and victim will involve observing a chain of situations and expressions. For example, in determining that A had the intent to kill B when he stabbed B, one may assume that A may have had the following situations in his head: 1) B is within striking distance 2) I will thrust the knife into B's chest 3) B will then die. Here these set of situations provide a glimpse of the defendant's mens rea. If the material expression or actus reus of stabbing B takes place accompanied by intent then the crime of pre-meditated murder is complete.

The previous situations from (1) to (3) provide a simplified illustration of the situational composition in a defendant's head during the formation stages of the defendant's intent to kill. In reality there are numerous situations that exist in A's head which may or may not be expressed. For example A may enjoy the idea of killing B and may express this by smiling at B prior to stabbing him. A may also be thinking that he must stab B with a quick reflex so that any attempt at defensive actions by B to save herself will be unsuccessful. Within the small frame of time during which A had formed the intent to kill B and has acted on the intent a combination of numerous situations and expressions have taken place.⁴⁸

A chain of situations and expressions is constantly being formed during the commission of a murder. The chain of situations and their expressions is called "contax".⁴⁹ Theoretically, a contax shows how an individual put his or her understanding, doing, saying, and writing of things in contact. Contax is the pathway that is consciously travelled by the individual.

IV. THE CAUSATION LINK

Analysis of the relevant parts of one's contax is necessary to show the act and its causation. Mens rea and actus reus cannot be understood alone without having a basic understanding of the cause and effect relationship. In law causation is divided into two categories, namely direct or actual cause and proximate cause. Direct cause involves what is sometimes referred to as the "but for" test which simply states that if there is no precedent then there is no antecedent⁵⁰. For example, if A had not

48. See *id.* at 40. In any given scenario there are likely to be large number of acts. The trier of fact attempts to isolate the prohibited act or acts. Which act is prohibited and which ones are not may be a complex consideration. For instance, if one screams at his spouse does this act constitute assault? What happens if one walks up to his spouse and screams in her face? Depending on the way a particular crime is defined the trier of fact may need to consider such things as how the defendant approached his spouse, what was screamed out, why did the defendant scream, etc. In any situation the trier of fact must be able to correspond the proper mental state(s) with the proper act(s). Whether we are dealing with one single act or a series of unbroken acts, the trier of fact must determine whether the defendant possessed a mental state or states in a very brief span of time. The trier of fact must be able to isolate a number of mental states that may exist within a very short time frame and attempt to associate these mental states with their corresponding acts.

49. See CHANDOLA, *supra* note 18, at 26.

50. See LAFAYE, *supra* note 2, at 249.

stabbed B then B would not be dead. This would be the simplest case that a prosecutor would present to the trier of fact. Causation, however, becomes much more complicated when one looks at proximate cause in which the defendant's chain of acts and their results becomes the consideration.⁵¹ Under proximate cause the closeness of the act and result are looked upon in determining whether the defendant should be held criminally accountable. For example, is A guilty of first degree murder if he stabs B who later dies at the hospital due in part to the hospital's negligence?⁵²

Although "causation" in criminal law is limited to dealing with the ideas of direct and proximate cause, understanding cause and effect relationships from a broader perspective is essential in evaluating mens rea and actus reus. Assume that A has the desire to kill B and knows that there is a substantial likelihood that her actions will lead to B's death. Exactly what happens in the defendant's mind when she forms the intent to kill and then successfully commits the act? The definition of any mental state assumes that the defendant is aware of certain conditions in her environment and her own actions. For example the definition of knowingly requires that the defendant be aware of what her conduct is and that her conduct will cause a certain result. For the defendant to understand that an action is practically certain to cause a particular result assumes that the defendant comprehends the physical world to the extent of understanding cause and effect relationships.

The less the defendant understands about how her actions relate to the physical environment the lower her mental culpability. If the defendant, for example, only disregards a substantial and unjustifiable risk that a particular result may occur then she has acted recklessly rather than knowingly. In this case the defendant may be guilty of the less serious homicide of manslaughter rather than first degree murder. When discussing the link between an actor's mens rea and actus reus it is necessary to discuss cause and effect relationships. An actor's mental state and actions do not operate in a vacuum. In situations where the defendant did not understand how her actions relate to the physical world or is unable to understand this relationship due to insanity the defendant is not guilty of a criminal offense.⁵³ In crimes where the result of conduct is the key consideration (i.e., homicide) to what extent a particular result is foreseeable may determine the defendant's mental state; this in turn determines the defendant's culpability.

Although the question of foreseeability does not exist in cases where the defendant's understanding of cause and effect appears obvious in more complex cases the defendant's ability to understand the consequences of his actions further down the

51. See PERKINS, *supra* note 2, at 690-692.

52. *See id.* at 698. If the trier of fact were to find that the physician's malpractice was the cause of death then the cause of death will be called a "superseding cause" of death since it was an intervening act that broke the chain of causation between the actor's conduct and the result. *See id.* In this case A may be acquitted of homicide charges and may instead be found guilty of a lesser charge. However, if the trier of fact finds that both the stab wound and physician's malpractice lead to B's death then both of the causes will be recognized as the "contributory cause" of death. In this case, A will be held responsible for the death. *See id.*

53. *See* LAFAYE, *supra* note 2, at 268-269. By insanity we refer to the legal definition of the term rather than to any psychological or medical usage. *See id.* for a further discussion of the legal term.

chain of causation becomes an important consideration. For example, can a father be guilty of homicide if his twelve year old son accidentally runs over and kills a pedestrian after receiving permission from his father to drive a vehicle? Assuming that the state actually brings homicide charges against the father, his ability to understand the potential chain of consequences of allowing his son to drive a vehicle will be evaluated by the trier of fact. The importance of the concept of foreseeability in criminal law is clearly seen in the felony murder doctrine where accomplice liability may be based on the criminal acts of the principal.⁵⁴

In a world where things do not necessarily operate in the way one plans there is always the problem of causation. The actor's intent and corresponding act to fulfill that intent may not always have the intended result. In the language of contactics this phenomenon would be explained by saying that the "contaxic effects" (what actually happens) differed from the actor's contact transformation (what the actor has planned as the objective).⁵⁵ A contactor puts his or her plan into action. However, it is not always possible for a contactor to be aware of the "contaxic effects." A contaxic effect is a side effect not anticipated by the contactor when he or she forms a plan or implements a contact program for a contact transformation (objective). In a previous hypothetical where David and Jane are involved in a scuffle David, for example, may not have realized that dancing with another woman would eventually lead to a fight with Jane. It is possible that David danced with another woman with the sole objective of "dance" without forming any set of situations or contact program for "flirting" with another woman or causing Jane to become jealous. The scuffle that eventually took place between them was a contaxic effect which was not planned for or anticipated in David's contact program which was implemented during the dance.

There are many scenarios where we can take the different permutations of intent, act, and results. The whole purpose of discussing the previous scenarios is to show the complexity of human interaction with the environment. Contactics shows how a conscious act is part of an individual's contax. That is, a given act is considered to be the outcome of certain situations and expressions that are linked in a "cause-and-effect" relationship. This position of contactics is not different from that of law. Similarly, *actus reus* must be linked with the underlying *mens rea* for a crime to exist. Contactics uses the concept of "situation" as the internal plan of an action. The expression must always be linked to the underlying situation. The whole process by which situations and expressions are created and interact with each other

54. The general principal behind the felony murder doctrine is that a felon will be guilty of homicide that is committed by the co-felon. See TORCIA, *supra* note 2, at 315-318.

55. The scenario where one desires a certain result, but then something completely different from the desired result occurs is a common one, a, for example, intends to kill B, but by accident kills C who happened to be standing right next to B. A, regardless of his lack of intent to kill C, will be considered guilty of premeditated murder under the principle of "transferred intent". A jury instruction for transferred intent may state as follows: When one attempts to kill a certain person, but by mistake or inadvertence kills a different person, the crime, if any, so committed is the same as though the person originally intended to be killed, had been killed. CALJIC No. 8.65 (6th ed. 1996). One may conclude that A possessed the mental state of "recklessness" in regard to killing C, but the law directs the trier of fact to transfer A's mental state with regard to B to C. Under the concept of transferred intent, A is guilty of the premeditated murder of C.

can be put into a formula.

V. CONTACTICS FORMULA: THE RELATIONSHIP BETWEEN MENTAL STATE AND ACT

The basic idea presented by contactics is that the things we do make sense only when they are put in contact with instructed roles already in our heads.⁵⁶ For a scientific analysis of how a mental state is transformed into action it would be helpful to understand the formulation of contax. The following formula shows how situations and expressions move forward to form contax:

$$\dots S_n \longrightarrow [S_a \supseteq E] \longrightarrow S_n \dots$$

$$\text{where } S = A \cap P; E = M, L$$

This contact formula reads as follows: A number of situations, S_n leads immediately to a particular situation, S_a , which may be partially or wholly expressed as E or expression.⁵⁷ A number of situations, S_n , may follow an expression.⁵⁸ A situation consists of an activity, A , and its participants, P .⁵⁹ An expression is either material, M , or linguistic, L .⁶⁰ The sign \supseteq between S_a and E stands for partial or complete representation of the preceding symbol by the following symbol, which in turn is completely contained in the preceding.⁶¹ That is, S_a contains E .⁶² The three dots before and after the formula stand for continuum. The two signs \longrightarrow and \supseteq represent forward or unidirectional contact.⁶³ The sign \cap for 'with' represents also the absence of linearity between the symbols before or after that sign.⁶⁴

The formula represents the contax formed by linear and non-linear components.⁶⁵ Components of a situation represent "items" on a one-to-one basis occurring simultaneously, that is, non-linearly.⁶⁶ But the components of an expression occur one after another, that is, linearly.⁶⁷ As observed in discourse or conversation a linguistic expression may be left incomplete.⁶⁸

The formula shows that any such expression is always contained in the underlying situation.⁶⁹ For example, David may say only "I will" instead of the complete linguistic expression "I will beat you up". The situation is complete for the incomplete or complete expression. Here the situation contains the images of the

56. See CHANDOLA, *supra* note 18, at 13.

57. See *id* at 25.

58. See *id*

59. See *id*

60. See *id*

61. See *id*

62. See CHANDOLA, *supra* note 18, at 25.

63. See *id*

64. See *id*

65. See *id*

66. See *id*

67. See *id*.

68. See CHANDOLA, *supra* note 18, at 25.

69. See *id*.

activity and its doer and goal with their specifiers. Simply put, David knows internally what he meant fully by saying only "I will".

It must be noted that a situation's basic elements come in contact simultaneously, as if, selected and shot together in one single frame by a camera.⁷⁰ This explains why every situation is always complete with the images of all the selected components (items).

The individual who forms contax is called contactor. In a contax one single situation represents microcontact.⁷¹ Two or more situations with or without one or more corresponding expressions are macrocontact.⁷² If the contactor produces a contax with no other contactor then such a contax is intracontact.⁷³ When two or more contactors exchange expressions their contaxes become mixed. Such a mixed part of their contaxes is called their intercontact.⁷⁴

Contactors keep on producing situations throughout their waking state.⁷⁵ But only a very few situations are converted into expressions. When a set of expressions is selected as data it is called "contactual data" since an expression is an act evolved through the contactic process represented by the formula above. The formula represents how a set of selected things or "items" go through a conscious evolution which can be represented simply as follows:

"items"-->'images'-->items/concepts⁷⁶

Contactual things or the output items/concepts (expressions) are created and recreated by the contactor through the contact formula. The output, the contactual data, can partially or wholly be used as data by anyone for any purpose. Each individual has a unique understanding of this contactual data; this understanding constitutes the contactual reality of the data for the individual. For instance, each juror will have a unique understanding of the statements made by a particular witness. Such a unique understanding is due to the influence of some situations in the contaxes of the individual (contactor) who is observing the contactual data. Those influencing situations give the contactor a sense of reality of the contactual data in question.

VI. REALITY: THE DIFFERENT WAYS IN WHICH WE SEE THINGS

During a trial the opposing attorneys are attempting to convince the trier of fact of their side of the story. Even when the defense attorney relies solely on the defense of reasonable doubt, she is attempting to show that there is not enough evidence to determine guilt. Each side is attempting to present their own contactual reality or their own version of what and how certain things took place. It is this individual

70. *See id.* at 25-26.

71. *See id.* at 26.

72. *See id.*

73. *See id.*

74. *See* CHANDOLA, *supra* note 18, at 26.

75. *See id.* at 19-20.

76. *See id.*

version of reality which is called contactual reality. The trier of fact must decide which contactual reality that is presented to them is the correct one for legal purposes.

To illustrate differing contactual realities let us take a hypothetical case in which Jane and her boyfriend David are involved in a scuffle during which Jane is cut by a kitchen knife. Both David and Jane may not share the same version of what happened. In this case both David and Jane have separate contactual realities. Both of them went to a friend's party where David met another woman, Ann. He danced with her and kissed her several times. When David and Jane returned home they exchanged angry words which then lead to a scuffle. During the scuffle Jane received a knife wound on her shoulder. She then called the police and told them that David tried to kill her. By the time the police arrived David had already left the house. The police managed to find and arrest David. Jane did not drop the charge that David attempted to kill her. David had his own version of what took place which he related to police officers. David claims that Jane become jealous because he danced with Ann. According to him he was resting on the sofa when Jane who was still extremely upset attempted to stab him with the knife. He then quickly grabbed her hand and tried to gain possession of the knife. David claims that while he was attempting to dislodge the knife from Jane's hand she accidentally cut her own shoulder while attempting to pull the knife away from him.

The previous situations present a juror with conflicting contactual realities. During trial the two contactual realities that will be viewed by the trier of fact are whether David attempted to kill Jane as she claims or whether Jane accidentally stabbed herself in the process of fighting with David as he claims. In determining whether David's act is criminal the trier-of-fact may look at data not linked to mens rea or actus reas, yet relevant. Motive, for example, may be taken into consideration.⁷⁷ What is relevant or irrelevant is argued in a court of law. The complexities underlying the contactual realities of the defendant, for example, must be taken into consideration to understand his or her version of the facts. His or her contact is basically the record of his or her entire conscious life which must be considered within the relatively short time period of the trial. The knowledge of what situations and expressions of the contactor led to the alleged criminal act are important considerations for the court.

The outcome of the trial is also dependent on the contactual realities of the other participants in the trial. The prosecutors, defense lawyers, judges, jurors, and witnesses may not have identical opinions about the alleged crime. All of these additional parties are contactors with their own contactual realities concerning what actually happened between David and Jane. Contactual realities are not static, but are constantly changing. We may have contact programs that do not match our previous contact programs. A contact program is the set of situations that is followed by its corresponding expression for the purpose of meeting an objective. David, for

77. See *infra* note 78. Black's Law Dictionary defines motive as follows:

Cause or reason that moves the will and induces action. An inducement, or that which leads or tempts the mind to indulge a criminal act. BLACK'S LAW DICTIONARY 914 (5th. ed. 1979).

example, had a contact program for dancing with Ann at the party. Before attempting to meet the objective of dancing with her, he must have formed some situations as to how he would approach her, what he would ask her or what type of dance he would like to perform, and so on. David's plan for implementation is his contact program.

It is a common observation that our contact programs, hence our expressions or acts, are inconsistent and diverse. This is so because the conscious contact code and the items to which it is applied are arbitrary in the sense that they are selective and changeable. This is why we can have a verbal performance or expression such as "Jane called David a hero" or "Jane called David stupid" as well as a non-verbal performance or expression in which we observe that "David held Jane's hand in his hand" or "David hurt Jane's hand with a knife". The same contactor selects the specification "hero" for the other person in one verbal expression, but "stupid" for the same person in the other. Likewise, the same contactor "holds" the other person's hand "gently" in his hand in one non-verbal expression, but "hurts" the same person's hand with a "knife" in the other. From these examples, it is clear that such selections and changes are decided arbitrarily by the contactors.

Due to the arbitrary nature of the code and the items it is possible to hold contactors accountable for their conscious acts. A conscious act is the result of an immediate plan, hence a contact program, in which the contactor decides what things to select and what roles to assign to them in order to achieve the contact transformation or the objective.⁷⁸ Thus, a contact program is a necessary link to the contact transformation. Moving from a contact program to its intended contact transformation means linking mens rea to actus reas. This link is direct in crimes that prohibit certain conduct (e.g., smoking marijuana). In crimes that prohibit a particular result (e.g., homicide) moving from a contact program to the intended contact transformation involves linking mens rea and actus reas directly to the prohibited result.

While the judicial system is expected to come up with a contactual reality concerning guilt or innocence of the defendant there is also the concept of actual reality in contactics theory that has no real application in the courtroom. Actual reality is an absolute reality that is unknowable. The notion of actual reality will hold greater interest to a philosopher or scientist, instead of a judge or juror who simply

78. Contact transformation is closely related to the concept of motive in criminal law. The consideration of whether the defendant had a motive for committing an alleged crime often helps the trier of fact in making sense of the defendant's situations and expressions. Why did the defendant do what she did? Was she after money? Maybe she was seeking revenge? Whatever the reason may be for the defendant's behavior, consideration of motive provides the trier of fact with some reference with which he or she can understand the defendant's behavior. For this reason it is important for the trier of fact to try to reconstruct a defendant's contact program or "plan of action".

In fact where the evidence against a defendant is mostly circumstantial the defendant's motive may cast light on the defendant's state of mind and his or her actions. See LAFAVE, *supra* note 2, at 204. LaFave also states that evidence of a defendant's motive is highly relevant to certain defenses that he or she may raise such as self-defense where the defendant would have to prove that his or her act of attacking the alleged victim was justified on the grounds that the defendant believed that the alleged victim was attacking him or her. See *id.* at 206-207.

The defendant's motive is also an important consideration in sentencing when a guilty defendant's reasoning for committing a criminal offense may be an important factor in determining whether the defendant will get a harsh or lenient sentence. See *id.* at 207-208.

assumes that a certain reality exists and then tries to figure out what that reality is. Although the concept of actual reality may be dealt with in other fields such as philosophy and psychology, contactics provides a code based theory that shows how contactual reality is processed and formed in the brain.

Actual reality and contactual reality differ mainly in one respect. Actual reality is not invented or created by humans; its laws work independently of what humans understand, do, say, and write. Contactual reality, in contrast, is created by how we understand, do, say, and write about the things we come in contact with. Any human relationships, actions, and institutions are considered real because they are organized with certain contactual realities of certain individuals or groups. Contactual realities are pragmatic and dynamic. They vary from individual to individual and group to group as well as from time to time and space to space. Human laws, for example, are the product of contactual reality; they are created, interpreted, and implemented with a sense of their reality. Such a sense of their reality is contactual reality. But this is a creative and variable sense which is why we have two conflicting contactual realities with regard to one and the same data or case—one with which the defense works and another with which the prosecution works.

VII. CONCLUSION

Contactics deals with how we consciously understand things and translate them into acts. Unlike other approaches contactics unifies all conscious experiences and actions with a simple single code. It also holds that an act begins with a code which is composed of three elements, namely activity, activators and specifiers. When items or things are put in contact with the elements of the code then a situation is formed. It is this contact through which a meaningful or conscious experience is evolved as a situation, the minimum and complete cognitive unit. Mens rea is basically a set of situations that are in the defendant's brain. A situation may evolve into an expression or act. The contact of situations with their expressions evolves a chain called contax.

Contactics, in essence, explains what mental states are, how they function, and how they influence one's conduct or action. Contactics is, therefore, an attractive theory to apply to criminal law where the mental state and conduct of an actor are what define a crime. The application of contactics is especially useful to criminal law which provides a nebulous definition of mens rea. The process of applying contactics to criminal law is really an attempt to codify something that is highly conceptual. The importance of having a clear and applicable definition of mens rea cannot be understated since the lives of so many individuals depend upon the interpretation of the concept by judges and jurors in reaching a verdict.

