About the Tutorial

Thematic Apperception Test is a popular method of psychology assessment which uses Projective Hypothesis Technique. It differs from the more traditional ink-blot tests in that the images used in TAT (Thematic Apperception Test) are not abstract ink-blots but representational figures that are vaguely identifiable by the viewer. These images carry a theme in them. Depending on the viewer's identification and analysis of the sequence, a psychological map is drawn.

Audience

This tutorial is designed primarily for those who want to understand the working of a Thematic Apperception Test, and how such tests influence decision-making in organizations where there is a strong test of character involved in the selection process.

Prerequisites

Before proceeding with this tutorial, you are expected to have some knowledge on psycho-analogy and Rorschach ink-blot testing.

Copyright & Disclaimer

© Copyright 2016 by Tutorials Point (I) Pvt. Ltd.

All the content and graphics published in this e-book are the property of Tutorials Point (I) Pvt. Ltd. The user of this e-book is prohibited to reuse, retain, copy, distribute or republish any contents or a part of contents of this e-book in any manner without written consent of the publisher.

We strive to update the contents of our website and tutorials as timely and as precisely as possible, however, the contents may contain inaccuracies or errors. Tutorials Point (I) Pvt. Ltd. provides no guarantee regarding the accuracy, timeliness or completeness of our website or its contents including this tutorial. If you discover any errors on our website or in this tutorial, please notify us at contact@tutorialspoint.com.
## Table of Contents

1. **TAT – INTRODUCTION** ................................................................. 3
   - Defining TAT ................................................................. 4
   - Significance of TAT .......................................................... 6

2. **TAT – HOW EXPERTS DEFINE AGGRESSION** .......................... 7
   - Types of Aggression ......................................................... 7
   - The Positive Side of Aggression ......................................... 7

3. **TAT – PRECAUTIONS** .............................................................. 10

4. **TAT – CASE STUDIES** ............................................................. 12
   - What the TAT Scores Revealed ....................................... 13

5. **TAT – RESEARCH METHODS** .................................................. 15

6. **TAT – RESEARCH RESULTS** .................................................. 19

7. **TAT – PITFALLS OF TAT ANALYSIS** ....................................... 21

8. **TAT – AGGRESSIVE GROUPING** .............................................. 24

9. **TAT – CONCLUSION** .............................................................. 25
The Thematic Apperception Test (TAT) is a visually instructional narrative method where the participant is shown a series of pictures that have a vague resemblance to real-world objects, and is then asked to narrate a story linking all the images and using them as input to the narrative. This method is used to calculate a person’s ability at interpretation and construction of reality.

These narratives are then tested against standardized scoring systems and this objective quantitative data is then produced based on the person’s interpretation and construction. This study is often used as a method of further understanding behavioral patterns.

Scientists have found a co-relation between connection between fantasy and aggressive behavior. Psychologists are interested in understanding the links between the motive of aggression and the repercussions of these actions. This is where projective tools like TAT help them to look beyond the obvious signs and pick up the subtle levels of aggression. Projective instruments such as the TAT are often used to look at obvious versus subtle levels of aggression.

In TAT, the focus is not so much on what the subject is saying, but looking beyond the areas he is talking on, reading between the lines and understanding what information he is willing to reveal subconsciously. This way, TAT helps in identifying, determining, and assessing aggression.
Thematic Apperception Test

Defining TAT
Thematic Apperception Test is also popularly known as the “Picture Interpretation Technique”, the reason being that in this method, the participants are the narrators of their own malady. It is their words itself that gives a clue to their thought-process. The images used in these tests are usually thought-provoking because they aren’t exact replicas of people and things, but are vague representations of objects revolving around a specific theme.

Generally, the participant is encouraged to tell as dramatic a narrative they can create using the pictorial representations as key inputs in the story, and using them to introduce elements of variety, surprise, and conclusion.

Set of Questions Used to Encourage a Coherent Narration
During the act of narrating these events, the subject may be assisted to carry on the conversation by asking him questions like:

- What happened next?
- What happened to him?
- Where was the other guys?
- What did they do when they found out?
- What did the other people say when they knew?
- What happened in the end, and how did others react?
- How did they come to know about this, and who was responsible?
- Where were the characters (the ones the subject uses in his story) then?

Normally, the evaluator is not supposed to answer, imply or lead the subject into getting any idea on the images displayed in front of him. There should be no knowledge provided by the evaluator to the participant on the content of the pictures as well.

The task of the examiner is only to provide linking questions that help the narrator in moving his story forward, or when he appears to have ignored or forgotten about some of the characters he had created in his story.

This is done so that the flow of the speech continues, and the narrator also starts accepting the listener (in this case, the examiner) as a confidant, and slowly breaks the barriers that were preventing the conversation in the first place. However, under special circumstances, where the subject is either a child, or someone with low cognitive facilities, the examiner may ask questions on the images or the characters directly.
Use of Picture Cards

The complete test involves 32 picture cards of shapes that vaguely resemble male and female figures, some of the figures are androgynous, some are of children, and some cards may not even have any human shapes. One blank card is also shown as a trigger to elicit a story from the story-teller.

Although the cards were designed to be used with any age category, there is a unanimous acceptance that with more similarity between the figures on the cards with the participant, particularly age-wise, there is better connectivity and response from the participant.

Another important point that is often overlooked is the usage of all cards. Many practitioners tend to use only 8-12 cards of the total 20. However, it’s a biased practice, as it tends to not give the complete picture on the subject’s perception and perspective. Rather, it only gives a partial idea as the examiners are more interested in finding what they wanted to find, and not every other detail.

Many of the pictures used in this Thematic Apperception Tests revolve around themes of success, failure, happiness, contentment, jealousy, acceptance, aggression, etc. The pictures are then used to get an indication of the dominant personality of the subject.
Significance of TAT

Thematic Apperception Test can give a detailed insight into a person’s subconscious behavior, and when applied timely and correctly, can detect tendencies latent psychological issues, that might go on and lead to unhealthy social and personal life.

It’s important at this moment to discuss the difference between the standardization of the TAT scores, and the evaluation of TAT’s responses. Unlike TAT scores, there are no standardization for the responses that the participant might give. There are no tables with multiple options in which a participant’s responses will be fit in.

It is here a specialized hand helps. People generally think that if the test scores are standardized and the responses are so too, then even a layman can conduct a TAT and become an expert in it. However, nothing could be further from truth.

As there are no standard responses in TAT, an examiner could see different emotional responses with each new participant. It is he who will then use his experience and training to understand how to evaluate the readings and notes he took, and then to use them to score the participant.

Professionals can identify a range of issues through this method, however the absence of any standardization in scores makes it difficult to be a reference. Having said that, experts and researchers like Murstein have specifically mentioned that the usage of one set of cards to fit all the examinees is impractical, and introduction of different cards as per subjects is completely allowed, even encouraged impractical.
Ms. Gerda Siann, in her books, had described aggression as a dominating trait that tends to incite feelings of hurt or damage to people or objects. However, it doesn’t necessarily imply an inclination towards physical injury. In short, there’s a difference between an aggressive person and an angry person.

In the same vein, she writes that aggression need not always be viewed through a negative lens, as is the norm at present. An aggressive person may channel his aggression towards serving his ambition and achieving his goals in professional life. Of course, violence is often found to be a result of aggression, hence aggression is often wrongfully portrayed as a negative force.

### Types of Aggression

Many people channelize their aggression in two manners:

**Overt manifestation**

Overt Manifestation is when people openly express their aggression through violent actions or angry gestures that often threaten of physical injury. They are loud, brash and want to have things done their way at every possible step. They are control-freaks and perceive opposing views as a threat to their control.

People who are overly aggressive have difficulties in interacting with the society. They only feel at home with those in front of whom they can speak their mind, and those whom they can dominate in any conversation.

**Covert manifestation**

In Covert Manifestation, people express their internal aggression in very passive, subtle yet harm-causing manner. These people become defiant and intentional underperformers. They deliberately sabotage company assets, willfully waste time, and spread negative perception through gossip. They are more interested in being listened to, rather than controlling the process.

People who are covertly aggressive have difficulties in speaking their feelings out. They suffer from low self-esteem and lack the confidence to openly mention what’s bothering them. They don’t immediately report a miscommunication, or false statement made against them, or don’t retaliate even if false charges are levelled against them. In turn, they take out their aggression on their work, willfully damage company property, poison ears of their colleagues, and cause irreparable corruption to the minds of the human resources working in the office.

### The Positive Side of Aggression

In many cases, aggression becomes a positive emotion as well. For example, a person needs to be aggressive in his thoughts to be able to hold his ground when others are opposing his thought, and still manage to put his point across in a positive way. A person also needs to be aggressive to stave off any attacks on his person during any fight or confrontation. In cases like these, TAT comes as a helpful guide to understand the underlying emotions that are leading to such
aggression in the minds of the people. Depending on the emotions traced, a person may be either identified as an overt aggressive or covert aggressive person.

For example, if the latent behaviors could be traced as controlling, impulsiveness, one would know that the individual is an overt. On the other hand, if the latent behaviors point towards self-esteem, and communication, then it’s the covert.

There have been documented cases where people have displayed the tendency to not be aggressive per se, but to entertain ideas of aggression. This is called “fantasy aggression” where the subject imagines himself in a world where he is the boss and things happen the way he wants to, or a world where he can punish people the way he wants when he is wronged.
Case-Study: Card-11

Albert was the only child of his parents and lived in a good neighborhood. He was sent to the best school in the locality and proved himself to be a good student.

However, his parents could notice one issue during his growing up years, which was the fact that Albert used to be quite sad for the larger part of the day. They tried to have a word with their son about it but to no avail.

They had a word with one of their friends, Dr. Roeper who happened to be an expert in child psychology. Dr. Roeper employed TAT techniques with Albert and selected cards that fit his age. The cards undoubtedly revolved around the themes of fairy tales.

Albert, who till now had a sorry expression on his face, started taking interest and began having a conversation. He came up with imaginative descriptions of the characters drawn on the cards, and kept giving the names of characters as well. Dr. Roeper kept shuffling the cards so that the tone kept getting darker.

Then Dr. Roeper took out Card-11. He was expecting the reaction of dread that had spread all across Albert’s face. The boy was struggling to find words to describe the image laid in front of him.

Two dragons with one eating a person, and the other one looking towards the viewer. No sooner than he saw this image, Albert shouted, “Jerry’s going to hit me! He had promised he would do so! Save me from him!”

On asking around, it was found out that Jerry was the bully in their class who used to constantly demean boys. He had once shut Albert in a locker for hours. When he finally unlocked Albert out, he threatened to beat the life out of him if he complained to anyone.
Students studying psychology are given detailed instructions on how to analyze the interpretation of images given by the subjects. The reason behind this is there are numerous factors behind a person’s version of the story. Students are generally advised to try and assume a positive connection in the subject’s real life with his narration, instead of interpreting every single word spoken as an indicator of some hidden grief.

Examiners also need to be aware and sensitive to examinee’s cultural and social background. For example, cats are considered sacred by an Egyptian, however an Indian will have different views. Owls will generate different emotions in children from different cultures.

Not only this, experts also refer to previous personal and medical history in order to get an accurate analysis of a person’s TAT. In that way, they will have a context and direction while trying to interpret the narration, without jumping into conclusions immediately.

A person who has recently lost someone dear will frequently refer to the themes of death and sadness in his/her story-telling, so this vital piece of information makes the examiner understand the context of the person’s speech. He will understand that this is the narration of a person in a sad situation, as opposed to a perpetually sad person.

**Analyze the following image**
Depending on your gender, you might already have a positive or negative impression of this man already. Girls overwhelmingly give images like these a negative rating, whereas not many boys mind such images. This gives us an insight into the role gender plays in formulating a narrative in TAT.

Finally, the absence of any normalized or standardized scoring system is one of the biggest challenges in curbing multiplicity with TAT. Henry Murray, widely considered to be one of the most influential authors of TAT, had once actually attempted to count the exact number of variables that might be accounted for in Thematic Apperception Test.

Till now, there hasn’t been one uniform system that cuts across professional considerations and get universally accepted. This is the reason every new TAT score will be different. In recent years, some scientists have suggested the usage of computers in TAT scoring, however there has been critical backlash from the rest of the scientific community on it, because they feel that machines won’t be able to calibrate the emotions, and won’t be able to read between lines.
During a TAT session in Scottville, Michigan, some interesting observations were seen. The subject, a handsome fifteen-year old boy, was a very good student with outstanding performance in school and in sports.

It was reported by his teachers and parents however that he displayed a marked apathy towards other people’s feelings. He was neither very concerned with people around him being upset or sad. He would always appear indifferent in these situations.

The interesting observation was that he was the complete opposite when it came to himself. He was extremely emotional and touchy if someone even came close to passing a judgment on his skills, and threw tantrums around when someone else got better grades than him, or performed better in any activity. It was also seen that he was extremely degrading in his speech and used quite derogatory words with the ones he was upset on.

His parents were the ones to be most disturbed by his behavior as many people used to be immediately taken in by his good looks, charming behavior and social skills. Many of such people became friends with him, however none of these friendships would last for long. On his bad days, this boy would boss over them, abuse all of them in filthy language, and want them out of his life.
The doctors could immediately understand that this was a classic case of Narcissism Syndrome. The boy’s outbursts were the result of his over-exerting himself in studies and sports to be the absolute best in everything, however when he saw someone else getting better scores or grades, his frustration would come out and he would lose control over his temper. Needless to say, he didn’t have even a single close friend.

**What the TAT Scores Revealed**

The boy was given a set of images and it was asked of him to design a story around it. Initially, he approached it with a competitive streak and started using fanciful concepts to manufacture a story, obviously interested in impressing the doctor with his imagination powers.

However, after some early intervention during which it was made clear to him that the exercise is not evaluative in nature and doesn’t have any grades attached to it, he relaxed and started giving general responses as someone his age would.

**The following observations were made:**

- The most commonly recurring character in his depictions was an idiot. Almost all stories had a dumb, incompetent fellow.

- The protagonists of the stories were predominantly male. Out of 10 stories, only 1 was a female protagonist. In most of the cases, he had projected himself as the protagonist.

- The rest of the characters too were emotional, clingy, and ineffectual in decision-making scenarios.

- The protagonists in his story all had an overwhelming drive to succeed, and had to deal with overbearing and critical parents-figures in his life.

- There were frequent mentions of incidents of criticism and physical tussles in a generally unproductive and unfavorable environment. Father-figures are mostly seen as unreasonable and demanding.

- Mothers were seen as protective, but overly emotional and immature. Father figures were projected as incompetent, vain and proud.

- The main defense tactics and coping mechanisms were found to be verbal aggression, sneering, sarcasm, acting out and passive-aggressive responses. There were also occasions of trying to justify wrongdoings under twisted, subjective, and emotion-laden logic.

**Results of TAT**

Using such observation techniques, the examiners could notice that there were a lot of issues that the boy was facing within the family itself. On further inspection, it was clear that the father of the family used to equate making mistakes with being a loser, and although the father had never made any direct comment to the boy regarding this, his statements regarding people who made mistakes was always one of disappointment.

On many occasions, his father had expressed mild displeasure on his son coming second in a race or competition and had snidely remarked that a winner only knows the top position.
This mentality seeped into the mind of the boy from a very early age, and he couldn’t accept failure or anything below his expectations. With the help of these analytical methods, the boy was given proper guidance and anger management lessons. Today he is as competitive as ever, but concedes a better performance from someone else much more sportingly.
Many TAT practitioners don’t use any specific methods for administering their subjects to the process, however some follow some methods so that their reports can have some empirical basis, which can make their data reusable and inter-exchangeable to other practitioners.

Two of the most common methods are:

- Defense Mechanisms Manual
- Social Cognition and Object Relations Scale

**Defense Mechanisms Manual**

This method analyzes a person’s responses based on the honesty of his answers. If he is deliberately trying to project an unbelievably positive image out of all the cards, then he is in denial. In this evaluation system, someone in denial is considered to be the least mature in his thoughts and actions.

Someone who can manage to successfully project a relatable narration from the characters the image is carrying is considered to be somewhat mature and is given the tag of intermediate.

If a subject manages to not only project but also identify with the characters on the card and manages to relate with them on a personal level, then he is leveled as the most mature (identification).
Social Cognition and Object Relations Scale

This method involves four factors. It calculates the complexity of relationships the subject creates with the fantasy characters, how these characters affect each other, what kind of morals and emotional attachments these characters have, and finally – what will be the social outcome of the actions that the character’s practice.

Thematic Apperception involves a wait and watch technique. It’s more to do with reading between the lines as opposed to seeking explicit answers.

The entire process has been paraphrased below in relation to a scenario:

Card-1

The image shows a small log-cabin with three anthropomorphic ducklings having breakfast with a big crow peeking inside through the window.

The subject is given time to formulate a story around the setting. Generally, the person starts by stating the obvious:

- **Examiner**: What do you see here?
- **Subject**: It is a picture of a small log-cabin with three ducklings having breakfast with a big crow peeking inside through the window.

- **Examiner**: And then?
- **Subject**: The crow looks ominous (the crow’s expressions are normal)

- **Examiner**: What are they talking about?
- **Subject**: They are planning to go out and play after breakfast. They won’t when they see the crow.

- **Examiner**: Is that the end?
- **Subject**: Yes.

**Comment**: The early hypothesis says that the subject has family members who may be shady in his opinion. Has definitely had experience with someone who has destroyed a delicate relationship he had with someone.
Card-2

Once in the woods, three pigs were arm-wrestling, and it was two twins against one. In the end, the one wrestling solo won, and landed the palms of the other two with such force that the twins tumbled one over the other.

- **Examiner**- Who are the twins?
- **Subject**- Must be low-breeds.

- **Examiner**- Are they alike in nature?
- **Subject**- Yes.

- **Examiner**- Are they fair in fighting?
- **Subject**- They are losers.

- **Examiner**- Are they boys?
- **Subject**- Yes

- **Examiner**- Were they hurt in the end?
- **Subject**- Yes. Likely.
Comment: The subject seems to have experienced opposition from two or more people in his pursuit of a goal. He seems to have come across unfair people who used shady techniques in defeating him.
Social Mapping through TAT analysis has established the influence of peers on the formation of individual personality. In a study conducted in 1998, it was found that it was common behavior that first grouped people together and then made them reinforce their personality traits in a larger scale.

This was a huge change from the way child psychology was analyzed earlier. From the “birds of the same feather flock together” routine, people now understood that it was more of the “birds of same feathers were packed together”.

Children with high rates of disruptive behavior were disliked by their more conventional peers, which resulted in these children keeping their distance from the rest of the children. This way, each of these aggressive children will be isolated from the mainstream. Such children find it very tough to assimilate back in the classroom as there are very few “good” friendships available to them. Without positive intervention from the teachers, such children gradually start to get viewed in a certain image, which is that of an unfriendly and dissociated bunch of people.

In other words, the children have now been classified into two groups by the society. These children have no other alternative now other than to be friends with each other. When they find
that they have similar qualities, they get encouraged to exhibit these qualities in even larger and more explicit manner.

Because of the company these children keep, they won’t realize their wrongdoings that they would have otherwise been made aware of in better company. Not only do they keep practicing their behavior, but also find twisted ways to justify their thinking.

Earlier it was thought that children’s behavior and nature starts to change once they reach the stage of adolescence, however it was observed that the interchange of negative thoughts and rule-breaking behavior between aggressive children and those isolated by the mainstream children started much before that.

A research conducted on similar lines had confirmed that the relationships children have with their aggressive counterparts starts affecting them much before they become adolescent. It proved that peer influence was an instrumental device in the building of aggressive or disruptive behavior in children.

This relationship gets reinforced by further exchanges of information, ideas and disruptive behavior. It also gets enhanced due to the proximity that the children share with their aggressive peers. Slowly, they start imbibing the same ideas of their peers and a transformation of personality takes place.
People who agree for a TAT analysis are normally people who agree to be analyzed for the purpose of research, or who have been asked to consult a TAT expert for their own treatment. Most of the times, though, people going through a TAT analysis are those who have been ordered by the court to submit a TAT report.

These people realize that they are being subject to examination. They understand that their sentences will later be analyzed and a report will be submitted based on that. Understandably, many of them try to fake their content, as a result of which their expression becomes inconsistent with the material provided for their narration.

These people become very conscious and tend to water down their responses. They avoid any kind of hostility in their language and narration, they try and avoid aggressive responses, and try to stick to a neutral storyline as much as possible, even if the cards shown to them have high aggressive content.

These subjects will always try and show the positives out of any situation displayed in the card and manufacture all the right things to say out of the given scenario which will help them in their case, which is a blatant disregard of the objective of the TAT test itself.

In a majority of these cases, it becomes too tough for the examiner to give a rational explanation about the interviewer “faking” his/her answers, even if he is completely sure that the answers
Thematic Apperception Test

are all pre-determined and tailored. **This is one of the biggest pitfalls of TAT analysis:** the story-teller can choose to avoid giving genuine answers, and the TAT scorers can only report whether the interviewee was genuine with his answers or not but even then, he won’t be able to prove his point.

Many convicts try to impress the Parole officers by presenting aggressive acts within a socially-acceptable context, and by trying to justify wrong things happening to the characters in the card as “Destiny, God’s plan, etc.”, and by trying to give a false impression of calmness to mask their inherent aggression.

A maximum of such cases are not granted parole, because not only do these narrations ring untrue, but also justify wrongdoing in some twisted context or the other. Someone using “it was God’s will” as a crutch to justify someone’s doing something wrong to somebody in a card, could also easily use the same excuse when he inflicts damage on someone else.

Not all people fake their emotions, though. Many of them correlate and the truth is that the hardened convicts and violent people give a more authentic narration as compared to those who are mere juvenile offenders.

While many criminals look at the cards and say sentences like “he might kill him, I think he would love to punch him in the face”, they don’t do it out of violence. To most of them, it’s the natural step to take next. In their minds, the characters are **supposed to act** that way. They are honest, but they are also unchangeable.
People who narrate stories that have extremely violent content in them can suggest two things. One, the person is inherently violent and doesn’t make any attempts to filter the content of his speech, which means these are his genuine feelings.

The second case is that he doesn’t have any control over his thought process, and that’s why he is letting his anger take over his tongue. Both these cases suggest strongly that the person is not fit to be a part of the mainstream.

However, there are many who would suggest a violent action as the next step for some incidence and immediately try to cloak with “special situations” like being threatened, being drunk or under influence, or as a life-saving initiative or under extreme provocation. These people realize that violence as the immediate step to any problem is not socially acceptable anywhere. These people realize the errors in their thinking, and under proper guidance, they can become a part of the society again.
The following experiment was conducted on a group of piglets to determine their behavior at the time of their feeding off their mother. Two groups of piglets based on their gender were assessed based on their aggressive behavior.

The objective was to see if grouping piglets in different ways brings any change in the way they behave. The time of feeding was chosen as the observation time, as even mild-mannered piglets become agitated and competitive during feeding off.

Based on this, the piglets were grouped into:

- **Group FA-MF** – 4 males and 4 females familiar to one another from birth.
- **Group UN-MF** – 4 males and 4 females unfamiliar to one another.
- **Group UN-F** – 8 unfamiliar female piglets
- **Group UN-M** – 8 unfamiliar male piglets

The behavior of these four groups was studied by the researchers over a period of 28 days. It was observed that:

- The Piglets in Group UN-MF fought longer than Group FA-MF, Group UN-F, and Group UN-M on the 28th day.
- Group UN–MF were also more aggressive than the piglets in Group FA-MF and Group UN-F on the 27th day.
- There were more scratches, bites and fights in case of Group UN-MF as compared to the rest three groups.
- The duration of fights didn’t differ between Group FA-MF, Group FA-F, and Group FA-M.
- In Group UN-MF and Group FA-MF, male piglets were found to be more aggressive for longer duration than females. The presence of females increased aggressive behavior.

Using this observation, scientists were able to prove that given the same conditions, and when faced with the same challenges, animals tend to behave differently in presence of different company. This was the basis of “Aggressive Grouping” which states that people change their behavior to suit the company.
Thematic Apperception is being increasingly used as a part of many recruitment processes. For example, the Service Selection Board (SSC), an entrance test for aspirants of getting into Indian Air Force, uses the TAT model of intellectual analysis.

Globally, TAT is being used as a reference matrix to get a better understanding of the employees and candidates that a company hires, or those who are being recruited into different government departments.

It’s expected that TAT is going to play an even larger role in the future. In order to make this study into a mainstream practice, many researchers and observers are already working to bring a universal model into place that can be referred to globally.

Hope you have got a working idea on the principles of Thematic Apperception Test.

Thank you for reading.

References

- “A Practical Guide to the Thematic Apperception Test: The TAT in Clinical Practice” by Edward Aronow, Kim Altman Weiss, Marvin Reznikoff

- “Psychological Assessment, Psychiatric Diagnosis & Treatment Planning” by Stephen W. Hurt, Marvin Reznikoff, John F. Clarkin