Showing up Late for the Matinée

Daniel C. Dennett and Marcel Kinsbourne in their *Time and the Observer: The Where and When of Consciousness in the Brain* reject what they call the Cartesian Theater model of consciousness. After laying out and explaining what they take this model to be, I will then discuss Orwellian and Stalinesque revisions that relate to the Cartesian Theater. In conclusion, I will then present what Dennett and Kinsbourne purport to be a correct model of consciousness, the Multiple Drafts Model of consciousness, and also elaborate on why they consider this to be the case.

Dennett and Kinsbourne contend that the Cartesian Theater is as pervasive as it is misguided. This model of consciousness begins with the conscious mind. With every conscious mind, there is an observer taking in the available information about the external world on a trajectory moving through space and time from a point of view. A mind, then, is what Dennett and Kinsbourne describe as a locus of subjectivity, a thing with phenomenological properties. In other words, in order to be a locus of subjectivity, then there must be "something-its-like" to be in the state of a locus of subjectivity. The "what-its-likeness" to be in a given locus of subjectivity's state is determined by what is available to be observed from the observer's point of view. For example, suppose the observer experiences the lighting of a firework. From a certain distance to the firework, the observer experiences the sound and the sight of the firework display simultaneously. However, were the observer to witness the firework from a longer distance, she would experience the sight and sound at different times. The dissociated experience of the sight and sound from a far distance can be easily explained. Light and sound travel at different speeds, and so, arrive at the observer at different times. This is not what concerns Dennett and Kinsbourne, how-

ever. It is when the perception of the stimuli reach the brain that they find the logical problems with defining the experience.

The different arrival times of the light and sound are easily explainable. However, the actual location of the arrival itself brings with it a problem, and the beginning of the refutation of the Cartesian Theater. Where is the point in the brain that the effects of the stimulus must pass in order to change into an experience? In other words, where must the product of the stimulus reach in order for the observer to have experienced it? It is important to make the distinction between the effects of a stimulus and a stimulus. A stimulus, for example, is like a computer screen, and the lights coming off of the computer screen are the effects of the stimulus. Within the Cartesian Theater model, stimulus themselves never come to a central point in the brain, but the effects of the stimulus do. Let us refer to this hypothetical point as the "finish line." The finish line is vitally important to determining when the experience occurred. Without this knowledge, measuring the distance between the stimulus and the finish line is impossible. Being able to locate this point in the brain is essential to understanding when each experience occurred, as well. This is the case because, when measuring between two points A and B, points A and B must be clearly defined, otherwise, there is no end point, and therefore no finish line. Without this finish line, there is no beginning of the experience of stimuli. In essence, locating the finish line in the brain can lead us to understanding the "when" and "where" of consciousness. Unfortunately for proponents of this model of consciousness, because different areas of the brain are tasked with processing types of information, and we are unable to locate a single point in the brain where effects of a stimulus must pass in order to become an experience, the notion of "finish line' for perception seems to be nothing more than a misinformed attempt at explaining the centrally available information for

the locus of subjectivity to experience.This quest to find the finish line is motivated by ordinary terms of time in which one can put events that are perceived to have temporal properties into chronological order. In the case of the fire work, one can say that she first saw the display, and then heard the noise it made. These are useful to order stimuli into categories such as "not yet observed" and "already observed." However, because the experiential components of an observation occur within the brain at very short intervals, and the notion of a singular "finish line" is debunked, there are logical problems with defining the exact time as to when the experience occurs.

Dennett and Kinsbourne go on to explain the mistake in thinking that occurs when viewing conscious experience as a "stream of consciousness" where all of the information is centrally available. In other words, they lay out the problems of the Cartesian Theater model's sense of all of the information "coming together" into a cohesive experience. René Descartes, a philosopher who seriously thought about the inner workings of the conscious mind and the inspiration for what Dennett and Kinsbourne coined as the Cartesian Theater, did think that the brain had a central point, the pineal gland. With the pineal gland being the center of the brain, he proposed a model of consciousness that falls in line with the intuitions of many, but, as Dennett and Kinsbourne point out, is fundamentally flawed. To begin with, the pineal gland was what Descartes viewed as the "finish line" for potential perceptions in the brain. When the information passed through the brain reaching the pineal gland, it would act- in an unexplainable way- as the bridge between the material body, and the immaterial mind. Information from the material world would pass through the pineal gland to the mind, and when the mind made decisions based on the observations, it would send a message back through the gland with instructions for the body regard-

ing how to act. The problems surrounding the immaterial mind have been thoroughly discussed and accepted by a rather large majority. The material aspect of this theory of consciousness, the view that there is always a clear distinction between stimuli that are not yet observed and others that have been observed stemming from information passing through a specific point- like the pineal gland- has pervade in the attitudes of many. The temporal and spatial distinctions used in the Cartesian Theater model of consciousness are meaningless when they are used in attempting to describe experience within an observer whose point of view is spatially smeared across areas of the brain, and not centrally located into one localized point.

In order to understand the drawbacks in applying the Cartesian Theater model of consciousness to an experience, I will use what Dennett and Kisbourne refer to as the Color Phi example. In the Color Phi example, two small dots separated by four degrees are flashed on a screen in rapid succession. In order to understand how the experiment functions, imagine watching a television program. The basis for this experiment is how one experiences seeing movement from one cohesive structure on a television screen instead of perceiving the 'movement' as separate pictures being flashed in succession. So, phenomenologically, when the two dots are lit up in rapid succession, it appears to the observer that the dots are moving. Empirically, however, the dots do not move, but merely light up at different times giving the illusion that they are moving. In this example, the two dots are different colors. Suppose that the first dot is green and the second dot is red. When flashed across the screen at different times, what will happen to, what appears to be, the one dot when "it" changes color? After taking part in the experiment, the observers reported that they saw the 'dot' moving and, in the middle of the dot's trajectory, it abruptly changed color. The fundamental question, then, deals with the change in the middle in

color of the illusory dot movement. How is it that our brains can fill in the change of color in the middle of the illusory dot movement in a spot that seems to come 'before' the second colored dot even flashes? In other words, the observer reports witnessing the change in color at a point on the screen that, within the illusion, happens before the dot empirically changes color. Furthermore, without any sort of knowledge about future events, then the illusory content must be created after the appearance of the second colored dot flashing.

This raises serious problems for the proponents of the Cartesian Theater model of consciousness. In that model, the effects of stimulus must arrive at the brain, and then pass through the "finish line" so that what was not yet observed, could become observed. In the Color Phi example, however, the dot appears to change color in the middle of the illusory movement from one spot to another. This illusion is inexplicable if the Cartesian Theater model is accurate. On the screen, there are two separate dots that maintain their positions on the screen; the dots do not move, and do not change color. So, when the observers report that the dot moved from one spot to another, and changed color in the middle of the movement, then there is no way that the second red dot could have passed through the finish line in the brain before flashing on the screen.

Dennett and Kinsbourne use this finding of the illusory dot changing colors in the middle of its trajectory to refute the Cartesian Theater model of consciousness. Because this model is unable to account for all the information being observed, they have offered up potential defenses with which proponents of the Cartesian Theater could respond. These positions are what Dennett and Kinsbourne refer to as the Stalinesque and Orwellian revisions. In order to clearly explain the basis for these two revisions, I will refer back to the Color Phi example. Once again, the question that proponents of the Cartesian Theater have trouble answering is how the observers

could have a conscious experience of the the green dot turning red in the middle of the non-existent trajectory in a spot that is different from where the dot actually flashes red. The observers could not have known ahead of time that the dot was going to flash red. The Orwellian revision is the experience of a false memory. In other words, the observer perceives the stimulus correctly, but constructs the memory of it incorrectly. The new memory memory replaces the old memory so quickly, though, that the observer is unaware of the revision. In the Color Phi example, proponents of this theory say that the observer unconsciously perceives the red circle's flash after the green circle's flash. The brain then uses this information to construct an illusory experience of a singular dot moving from one point to another, and changing color in the middle of its illusory trajectory. The second kind of revision, the Stalinesque revision, is one in which the observer consciously perceives the green dot flash, and then the red dot flash with no movement from either dot. Consciousness is delayed long enough for the brain to revise the perception and fill in facts that were not actually a part of the stimulus. So your memory is correct, but the original consciousness was mistaken. When attempting to recall what the observer perceived, the brain creates a false memory in which the observer now believes that what she witnessed was a singular dot moving from one point to another while changing its color in the middle of the movement. The distinction between these two revisionist theories of the Cartesian Theater stems from the initial observation of the dots. In the Orwellian revision, the experience is mis-remembered. In the Stalinesque revision, the experience is remembered accurately, however the initial experience was illusory.

Now that Dennett and Kinsbourne have refuted the notion of the Cartesian Theater playing a role in conscious experience, I will now lay out what they take to be the correct model of

consciousness, the Multiple Drafts model. The overarching foundation for the Multiple Drafts model is that the temporal properties of the experience are a product of the interpretation of these events by the brain, and do not accurately portray the way events actually occur. In fact, the constant act of observation creates an experience that is under continuous revision. These revisions are of various kinds that occur very quickly, and are handled by different localized areas of the brain. Given enough time, and enough editorial revisions to the experience gives rise to what the observer experiences as a "stream of consciousness." A fundamental posit of the Multiple Draft model of consciousness is that any given observation of a stimulus in that there is something-it-is-like to observe the stimuli only needs to happen once within a given area of the brain. Because this must only happen once in an area of the brain, and not be re-presented at a center point in which all observations come together to form this stream of consciousness, Dennett and Kinsbourne find no need for a pineal gland-esque operator. Without the operator, there is no notion of a Cartesian Theater. Instead, there are a number of different drafts undergoing numerous additions, discriminations, etc. It is important to note that, according to Dennett and Kinsbourne, no draft is more representationally accurate than the next. Whereas proponents of the Cartesian Theater assert that what actually happened is what is actually observed, Dennett and Kinsbourne would say that all that matters regarding conscious experience is the "what-its-likeness" of the observation, not necessarily the way in which events happened spatially or temporally.

In order to understand the Multiple Draft Model of consciousness, I will use an analogy. Imagine writing a paper to be published by a philosophy journal. When sending it out to different people to revise, they send back what they think ought to be edited. The different suggestions from different people will not be returned at the same time, so the writer begins revising the pa-

per according to what the readers suggested. Once the paper has been revised for the first time and sent out again to other revisers, pointing to the actual paper becomes difficult. This is the case because there are now multiple drafts of the paper circulating between the writer and to those the writer choses to send the paper. With every suggestion, there are revisions, and with every revised copy sent out there is sure to be more editing that must be done for later suggestions. Now, there is no singular paper that the writer can point to and definitively say that that is the paper. Just like in determining the conscious experience in the Multiple Draft model, it is impossible to take an experience and pin it down as the singular experience, for the experience is constantly being revised by specialized areas of the brain.

Consequently, Daniel C. Dennett and Marcel Kinsbourne reject the attitude towards consciousness that they label the Cartesian Theater model. In this model, proponents posit that there is a single area in the brain in which effects of stimuli must pass in order to become a part of the all-encompassing experience. After laying out the fundamental problems with this school of thought, they offer up their theory of consciousness called the Multiple Drafts model. In this model, there are multiple different drafts of the experience going through constant revisions, so that one draft is no more accurate than another. Given enough drafts and revisions, this results in what the observer takes to be her stream of consciousness. Because there is no need for a central point in the brain to make sense of the numerous perceptions that an observer undergoes, Dennett and Kinsbourne postulate that the Multiple Draft model is an accurate model of consciousness.