



Repugnance Won't Do

A comment on cloning and stem cell research in light of emotion

Homo sum, humani nihil a me alienum puto.

"I am human, so nothing that is human is foreign to me."
-Seneca

By Brian Lynch, M.D.

Like most sciences, the field of biotechnology has long been regarded as the domain of reason where emotion can have no foothold. But as biotechnology continues to develop and advance, discussions about its discoveries are no longer contained to hard facts. In the case of cloning, for example, strong emotions butt up against scientific fact. Humans are emotional beings, and we must now learn how to blend emotion with reason. The scientific community can no longer look to reason only; disregarding how emotion can inform the issues will only do a disservice to scientific discovery.

Should Humans Be Cloned?

There has been a great deal of heated debate about whether or not a human should be cloned, that is, an exact replica made of a person from the genetic material of

that person alone without sexual reproduction. Other issues include guaranteeing the safety of the cloning procedure, and the parenting, identity, and self-image of the child. A major debate in terms of stem cell research is whether or not embryonic cells should be used. Many people of all persuasions feel that any embryo is a full-fledged human and it is therefore wrong to harvest cells from them. This is seen as a “slippery slope” of possibly ending in harvesting embryos solely for the production of stem cells.

Dr. Leon Kass, Chairman of the President’s Council on Bioethics, has stated that certain aspects of biotechnology are repugnant¹—specifically, reproductive cloning and certain aspects of cloning to produce stem cells. He says:

“ Repugnance, here as elsewhere, revolts against the excesses of human willfulness, warning us not to transgress what is unspeakably profound. Indeed, in this age in which everything is held to be permissible so long as it is freely done, in which our given human nature no longer commands respect, in which our bodies are regarded as mere instruments of our autonomous rational wills, repugnance may be the only voice left that speaks up to defend the central core of our humanity. Shallow are the souls that have forgotten how to shudder.”²

Dr. Kass has introduced emotion into a discussion in which emotion is thought to be subservient to reason. It is this dichotomy that I want to discuss in this paper.

Although I applaud Dr. Kass’ efforts, I do not support all his conclusions. But the introduction of emotion into the discussion of biotechnology is important, because at base, all human activity is emotional and thus has to incorporate an understanding of emotion in its workings and not take that understanding for granted. Bringing its role out in the open lends a heretofore-unknown clarity to the thought process. The flow of information is much less hindered. I intend to show that reason and emotion must work together to advance biotechnology and that invoking the emotion of “repugnance” will not, in the end, stop these advances.

Reason, Emotion, and Biotechnology

It is now some eight years since Dr. Kass wrote about these ideas. His arguments have been both strongly criticized and supported. Many of the arguments against him are similar to mine, but I do not dismiss him. Again, he does us a service by boldly bringing emotion into the picture and making us grapple with it.

Humans live in a cognitive culture. We have great faith in thinking, with deep cultural investments in its value. Consider two great influences of Western thought: Rene Descartes and Immanuel Kant. The former said, "*Cogito ergo sum*": "I think (doubt), therefore I am." The latter talked of "*reinen Vernunft*," or "pure reason." The tradition of reason permeates Western culture, and anyone who suggests otherwise encounters great resistance. I introduce this because if the reader is not convinced that there is something other than logic involved in our reasoning, then I will have failed.

Why do we need anything else besides reason? I maintain that reason has taken us about as far as we can go, and for some time, has even hindered efforts in many areas. Emotion must be factored into the equation. We should not abandon reason, but we need to know its place better. As Cicero said; "Men decide many more problems by hate, love, lust rage, sorrow, joy, hope, fear, illusion, or some similar emotion, than by reason or authority or any legal standards, or legal precedents, or law." ³ Even though Cicero said this so long ago, we still deny its truth.

Consider the Columbine shootings. In the aftermath, people asked why it happened. Did we not create wonderful "rational" planned suburbs with excellent teachers? How

could such a thing happen? Gus VanSants' movie *Elephant* is obviously a comment on Columbine and the environment that produced it. Roger Ebert reviewed the movie, and I use him as a spokesman for us all, and he ended by saying that there was no explanation offered and as if he agreed there was no answer, so there is simply no answer about why Columbine happened?

So this is what I mean. There is trouble about, much trouble and I believe it is right under our noses but we are not looking there. We are rather saying, "there is no reason, there is no answer." Are we giving up? We are simply throwing up our hands?

Likewise, with capital punishment, I know of no research, that is, nothing based in "reason" as the Western tradition as science and philosophy might define it, that supports capital punishment in any way that would convince us that it is a deterrent. As far as I know, all demographic data show capital punishment to be racially biased. This is the case, yet in any discussion of it no one can agree. Again, we throw up our hands and say we, must have capital punishment, usually not even bothering to give a "reasoned" argument. Why not? I think we know that this appeals to a more primal "reason," an emotional one but we cannot bring ourselves to articulate it. In fact, we very rarely even have the honesty to speak of vengeance or retribution, which are certainly "reasoned" and certainly good examples of reason based in some deep "logic" of emotion. "I am *hurt* and so you must *hurt*." This "reason" and "judgment" that emotion holds is part of what we are exploring.

Yet another example: Throughout the whole Clinton debacle concerning Monica Lewinsky, I do not remember one single sensible thing said about a clear line being drawn from Clinton's psychological state to his actions. Reason failed us. We seemed

simply flabbergasted. We simply showed our complete ignorance or completely forgot all we knew about how emotion affects our action. Reason failed us in explaining what was going on. Yet I posit that we had, and have had for many many years, the information necessary to explain his actions in humane and understandable ways. All we have to do is listen to him now to understand what happened.

And finally, our entire medical system is caught in a quandary from the doctor's office to the ICU and hospice. We want reason, mainly in the form of technology, to fix the problems because we do not have the emotional tools to bring reason and emotion together when we most need them. Patients insist that their emotional problems be fixed with a pill because "you can't buy compassion". We recently suffered through the Terri Shiavo case in which one side hoped against hope that one day she would be saved by technology. Yet, still technology brings us many wonders such as artificial limbs that are marvels and gives us many new pharmaceuticals that we would not want to discard. So this paper treats of issues that fall, seemingly, between the cracks.



Although we live in a world we did not choose, we try to control certain elements of it. For example, some believe crime can be controlled by the threat of capital punishment, and that school violence can be controlled through screening at the door and "zero tolerance." Similarly, some feel that practically any medical problem

can be solved with technology, and that the most profound ethical problem can be solved by “throwing the problem out” and being done with it.

Of course, the world is not under our control; change is constant. Over time, many cultures change: the neighbors get restless and fighting ensues, terrorists attack an invulnerable country. However these hidden dangers are not unknowable. The signs are there but are ignored. This is because we disavow emotional cues that can give us information to help predict. We can no longer afford to disregard such readily available information.

Listening to Emotional Cues

The word “repugnant” indicates a deep emotional response. Indeed, Kass says that “we are repelled” by certain ideas and activities. I contend that the reader assumes an understanding of the word “repugnant” and its complexities without understanding its true emotional content, because of the power of, and our faith in, “reason.” We went to school and learned to reason, but we did not have instruction in feeling and emotion unless we were extremely lucky. In other words, we assume we know what Dr. Kass is talking about because we mistake our *emotional* response for a reasoned response.

In the past, emotions were not talked about as readily as they are today. Now, it is common to talk about emotions, and there is a great deal of excellent material about various aspects of emotion in the papers, on television, and in many books. TV and radio talk shows abound and “self-help” books are among the most popular. People want to know about their emotional lives.

The best of this material emphasizes the nurturing of empathy. We are being educated slowly, by osmosis, in this very important part of our being. Ever so slowly, we are recognizing that *interest* is not reason, that emotion is not reason. That *interest* is an emotion. In fact, the opposition to Dr. Kass's appeal to emotion is in itself emotional as it calls for us to look at the biological and therapeutic advances we would gain, the paramount gain being the alleviation of the *emotional suffering* it would bring!

It is abundantly clear that our emotional lives are quite physical in nature. This, too, is a pervasive belief that is slowly becoming more fully conscious. People such as Paul Ekman⁴ and Joseph LeDoux⁵, among others, have fairly high profiles in the media as students of the physicality of emotion. We know that feeling and emotion are extremely important in our lives and thinking processes. Dr. Kass's and Martha Nussbaum's use of emotion in books like *Upheavals of Thought*, are signs that emotion is coming to be understood as a key element of reasoning. Nussbaum comments on Kass in other places and is much closer to what I am talking about in her work. She sees emotions as having a cognitive component. One of many of Nussbaum's passages demonstrates this:

...it might seem very strange to suggest that emotions are forms of judgment. And yet it is something close to this thesis that I shall defend. I shall argue that all of these features not only are compatible with, but actually are best explained by, a modified version of the ancient Greek Stoic view, according to which emotions are forms of evaluative judgment that ascribe to certain things and persons outside a person's own control great importance of the person's own flourishing. Emotions are thus, in effect acknowledgments of neediness and lack of self-sufficiency. My aim...is to examine this view and the arguments

that support it, adding some further distinctions and arguments to the original view.⁶ (p. 22)

Later, she says, "Emotions are not just the fuel that powers the psychological mechanism of a reasoning creature. They are parts, highly complex and messy parts, of this creature's reasoning self."⁷ Nussbaum clearly accepts emotion as a part of reasoning.

Dr. Kass's brave assertion exposes him to easy attack, as we live in a world where "bringing emotion into an argument is not fair," as a 60-year-old male once told me in a conversation. And of course, Dr. Kass has been and continues to be voraciously attacked for his ideas. The attacks I have read, however, miss the importance of speaking of emotion and repugnance. For Dr. Kass, the importance is that "repugnance may be the only voice left that speaks up to defend the central core of our humanity."

For me, the importance is that it is only through and understanding of emotion that we can progress and make sense of our quandaries, from Columbine to cloning. It is not, as Kass suggests, to use emotion to discard issues. His detractors attack him through perfectly logical philosophical arguments. However, emotion is not logic, though it has logic. This is my point. To emphasize using Nussbaum again: "Emotions are not just the fuel that powers the psychological mechanism of a reasoning creature. They are parts, highly complex and messy parts, Of this creature's reasoning self." Our emotions point our reason where it might and will go. Reason does what emotion asks of it.

Science and Emotion

Consider the specifics of the bioethical problems. The extreme argument pits those who claim to give no particular meaning to human life against those who claim some version of a natural law that elevates humanness to the panicle of life.

These extremes have, in the former, their origins in logical positivism that compels us to believe that existence is contextual and that science therefore is simply a collection of facts. Cloning, therefore, only has meaning in a context. The latter claims that we simply “know,” that we are aware of self-evident truths about human nature. Dr. Kass articulates this, in part, by saying we obtain this knowledge through our reaction of repugnance to certain ideas, such as reproductive cloning. Both schools are based on well-established philosophical traditions of reasoning.

Jacob Bronowski speaks to a part of the problem in his classic *Science And Human Values*, as having its origin in our misunderstanding of how “concepts” evolve:

The view that our concepts are built up from experience, and have constantly to be tested and corrected in experience, is not classical. The classical view has been that concepts are not accessible to empirical tests. How many people understand, even today, that the concepts of science are neither absolute nor everlasting? And beyond the field of science, in society, in personality, above all in ethics, how many people will allow the sanction of experienced fact? The common view remains the classical view, that the concepts of value – justice and honor, dignity and tolerance – have inwardness which is inaccessible to experience. ^{8It} (p. 38)

So, for Bronowski, “concept” is something that is not immutable. The concept that something, in itself, is “bad” comes not from man’s discovery of an immutable truth,

but is one that is contextual and changeable. Therefore, neither are concepts simple facts that exist without a context, nor is the concept that certain aspects of science are “repugnant” immutable, as he continues:

Here is the heart of the difference between the two ways in which we order our lives. Both ways hinge on central concepts. In both we reason from the central concepts to the consequences which flow from them. But here the two ways divide. In the fields of ethics, of conduct and of values, we think as Aquinas and Spinoza thought: That our concepts must remain unchangeable because they are either inspired or self-evident. In the field of science, four hundred years of adventure have taught us that the rational method is more subtle than this, and that concepts are its most subtle creations. A hundred and fifty year ago Gauss and others proved that the axioms of Euclid are neither self-evident nor necessarily exact in our world. Much of physics since then, for instance in relativity has been the re-making of a more delicate and a more exciting concept of space. The need to do so has sprung from the fact; and yet, how the new concepts have outraged our self-evident notions of how a well-mannered space ought to behave! Quantum mechanics has been a constant scandal because it has said that the world of the small scale does not behave entirely like a copy of the man-sized world. Jonathan Swift in *Gulliver's Travels* had remarked something like this back in 1726, and it ought to no longer to shock us; but of course Swift was a scandal to in his day.⁹ (p. 40)

So the concept of “repugnance” won't do. It is not immutable. Repugnance is personal. It is part of our personal logic and thus makes up part of our reasoning apparatus. But as my purpose is to mediate this discussion, I now turn to the person who gave us the tools to see how emotion permeates everything and has to be part of any discussion: Silvan S. Tomkins. By doing this, I hope to advance a more exciting concept of how biotechnology can be seen within the human experience. I

suggest that emotion is what bridges the gap between the immutable and the particular.

How Humans Express Emotion

Silvan S. Tomkins, an academic psychologist, developed the “Polarity Scale.”¹⁰ This scale explains how our socialization comes about. It’s purpose is to collapse and undercut many of the dichotomies we face, such as the one just described between the positivists and idealists. Tompkins’ general theory of humanness is grounded in the belief; corroborated by research¹¹, [footnote to this mentioning Ekman et. al.—this is your note] that humans are born with innate wiring that lets us, above all, feel our environment. As our environment is quite uncomfortable much of the time—we must deal with hunger, temperature, and illness—we need a way to communicate what we are feeling. If we are happy, we smile. If we are irritable, we look distressed, angry, fearful and so forth. Tomkins posits that the seat of humanness is in the face, not the brain. We communicate with our caregivers the only way we can as infants, and that is through facial expressions.

Earlier, I suggested that the answer might be literally right “under our noses” and this is what I meant. Starting with the face, we begin to discover a kind of Archimedean point, a real starting point from which we can truly see the entire person, where reason and emotion come together and interpersonal communication can begin to flourish. Tomkins’ theory revolutionizes Freudian drive theory. For Tomkins, drive is not an all-encompassing force that controls us, it simply becomes a way to describe neuro-hormonal systems that, when activated, come into consciousness. However, for them to come to consciousness we must be feeling something about the drive we are experiencing. For example: If I am hungry, then I must feel interest in my hunger or some other emotion. I might feel shame or anger

about my hunger. If I feel sexually excited, I feel something about that urge. Again I can feel joy or shame about the feeling. A drive becomes a problem if it is frustrated, by the caregivers for example, in which case the drive will be associated with negative feelings rather than positive ones.

Any experience that stimulates the hard wiring that gives us basic emotional feelings to some threshold will be remembered by the mind-body complex in some way, consciously or unconsciously. We will react, to a large extent, automatically: I feel this, I do this. Reason is always there in the baby, but it is inchoate and develops solely hand-in-hand with the baby's innate wiring and experience. Reason, as it so happens, becomes so powerful that we forget where we came from and that the same emotions that we started with, are still with us, working the same way as when we were born.

One of the most difficult concepts to consider in this theory is that reason (that is to say, thought) is wedded to emotion. Thoughts themselves always trigger some emotional feeling, albeit much of the time only very a low-level interest. However, a thought must be motivated by some at least low-level interest. Why? A postulate is nothing that comes to consciousness unless it passes through feeling, or through this innate hardwiring. As Nussbaum puts it, "Emotions are not just the fuel that powers the psychological mechanism of a reasoning creature. They are parts, highly complex and messy parts, of this creature's reasoning self." Emotion is always part and parcel of thought and reason. Thought just does not come into being without some fuel.

One of the most interesting things about the Tomkins theory is that he is one of the only major thinkers on these topics to identify *interest as an emotion* and this fact is

central to my thesis. I agree with Tomkins that we are born with some capacity to which we can assign the label, "interest." Additionally, we must have neuro pathways that are specific for each emotion. For example, we know of disabilities such as Asperger's Syndrome, in which the child can recognize the person but not the emotional expression on the face. But what we all want, even from before birth, is to give and receive interest. So, in the example of Aspergers Syndrome, the caregiver-child conflict is at its root an inability for the child to know when others are interested in him or express interest in others.

Therefore, interest is not reason and needs to be appreciated first as a feeling that leads to reasoning. Interests can conflict. Conflicting interests can lead to negative feelings. Overcoming negative feelings through renewed interest in what caused the negative feelings brings resolution and learning. Returning to the initial dichotomy, the "positivists" might be seen in terms as "wild" children who were not properly controlled and careen through the world, undisciplined. Perhaps they were never given any or only minimal normative education, so that everything has become equal in their eyes. On the other hand, we might say those that hold the normative view, in the extreme, are "repressed." Their emotional upbringing may have centered on learning to control, or not express, emotion at all. So where does one see oneself along this continuum? Dr. Kass's plea for recognition of some deep immutable "intuition" of repugnance would place him, of course, towards the normative pole.

Learning Emotional Control

Tomkins' Polarity Scale splits the difference. Emotion, and its free expression, is completely natural and needed in the child, as it is how the child communicates with

its caregivers. To be a baby is to be king, without the shame of selfishness. The baby is born as a good being, expressive of its needs. However, the realities of life interfere. We must eat, sleep, come in contact with other people. Given that other people have other priorities than our own, it creates conflict. I am hungry and my father wants to sleep. Tension develops very easily. Slowly, the baby must face the reality of having some controls placed on him or her. But for Tomkins, the ideal way to achieve this is not through setting strict rules or harshness, but through empathy. Simply, if a child is upset, it is the adult's job to figure out what is wrong. This is not to say that this is not an impossible task. It is a goal to strive for, with the acknowledgement that we will fail now and then, even much of the time. So the world puts pressures on the child to learn a controlled release of emotion and to reconcile conflicts with those around him or her. Severe repression of the expression of feelings (Tomkins calls the basic biological potential to feel a feeling "affect"), leads to many problems later on, including inability to empathize and rigidity.

What if there is not enough control? In an ideal situation, little control would be needed, as the caregiver would be responsive to the needs of the child on a very consistent basis resulting in the child developing a bond with the caregiver, which in turn develops into trust and caring of the child for the caregiver. In a relationship of trust and caring, controls will be self-imposed. This outlook will be crucial to what I have to say about the state of biotechnology.

Dr. Kass says that we must reject cloning and aspects of stem cell research on the basis of a natural repugnance to such things:

We are repelled by the prospect of cloning human beings not because of the strangeness or novelty of the undertaking, but because we intuit and feel, immediately and without argument,

the violation of things that we rightfully hold dear. Repugnance, here as elsewhere, revolts against the excesses of human willfulness, warning us not to transgress what is unspeakably profound. Indeed, in this age in which everything is held to be permissible so long as it is freely done, in which our given human nature no longer commands respect, in which our bodies are regarded as mere instruments of our autonomous rational wills, repugnance may be the only voice left that speaks up to defend the central core of our humanity. Shallow are the souls that have forgotten how to shudder.¹²

I contrast this now to another quote from Bronowski:

...practical discoveries are not made only by practical men. As the world's *interest* has shifted, since the Industrial Revolution, to the tapping of new springs of power, the theoretical scientist has shifted his *interests* too. His speculations about energy have been as abstract as once they were about astronomy; and they have been profound now as they were then, because the man loved to think. The Carnot cycle and the dynamo grew equally from this love, and so did nuclear physics and the German V weapons and Kelvin's *interest* in low temperatures. Man does not invent by following either use or tradition; he does not invent even a new form of communication by calling a conference of communication engineers. Who invented the television set? In any deep sense, it was Clerk Maxwell who foresaw the existence of radio waves...¹³ (p. 9, my emphasis)

The contrast is that the later deals with a moving forward by accepting that things simply happen. Human beings have ideas and follow them. The former quote from Kass takes that which is already out of the bag and tries to put it back in with repugnance, but it is his repugnance. And he shares it with many others, but as the second quote shows, many others had to have not repugnance in the ideas that he

rejects but interest. *Interest holds just as high as an emotional status, if not higher than repugnance.*

Interest is emphasized here because it seems to be the starting point for all discoveries and because interest is not reason. I would paraphrase Kass' words to say "that interest (that is, not repugnance) may be the only voice left that speaks up to defend the central core of our humanity. Shallow are the souls that have forgotten how to shudder." Interest for Tomkins is an innate emotion. Again, we are trying to put emotion into relief and give it its proper place next to reason. My view is that Tomkins gives us the tools to do so. It is a function of how we have evolved that reason has become so powerful that it has been unable to observe emotion until now. This last sentence, in a sense, summarizes what I see as the whole problem.

The Roots of Emotion

It is intriguing that we seem to forget that we have had the same brain for some 100,000 years. We did not suddenly exist 12,000 years ago at the dawn of settlements, or 35,000 years ago (the date of the oldest known cave paintings). It took us several million years to develop to this point. During this time we have retained layer after layer of neural networks. We have developed, becoming different and more complex than we were. Only recently have we developed a tremendous ability to conceptualize and make symbols, including symbols in the form of normative rules. But how does this affect our more primitive nervous system that must constitute 98 percent of our brains? The facial neuro-musculature network that forms a smile has a history that must reach back more than 100,000 years, yet, to a great degree, it sends the same message to the body and to others that it always has. We can and do think, now, all kinds of things about a smile or a frown that primitive man may have never thought, but a relationship to that primitive form

still exists. What we want now, as we have always wanted, is to feel good, to experience joy.

Repugnance and revulsion have, then, very deep roots. We all have deep feelings of revulsion. We all have deep feelings of interest and joy. What we think and do about repugnance is very personal, just as our interests and joys are very personal. I am not trying to say what Dr. Kass or anyone else feels beyond what he or they tell me, but I will talk about the complexities of a word like repugnance.

Tomkins shows how society has come to think and use these feelings in new ways over the millennia. Complex symbolic culture is very new. Now, Dr. Kass says that repugnance is not an argument, but does he convince us?

Revulsion is not an argument; and some of yesterday's repugnances are today calmly accepted—though one must add, not always for the better. In crucial cases, however, repugnance is the emotional expression of deep wisdom, beyond reason's power to fully articulate it. Can anyone really give an argument fully adequate to the horror, which is father-daughter incest... or having sex with animals, or mutilating a corpse, or eating human flesh, or raping or murdering another human being? Would anybody's failure to give full rational justification for his revulsion at those practices make that revulsion ethically suspect? Not at all. On the contrary, we are suspicious of those who think they can rationalize away our horror, say, by trying to explain the enormity of incest with arguments only about the genetic risks of inbreeding.¹⁴

He certainly hedges. I say that he has it both ways, in that "revulsion is not an argument" but that he also somehow wills the existence of eidetic objects, or acts, that are in themselves repugnant and will always be repugnant. And he lists them. There is another view, one based in our complete humanness. I began this article

with a quotation that is usually reduced to "Nothing that is human is foreign." However, we can collapse our Cartesian error of separating the mind and body, and in so doing unify emotion and reason. In order to do so, we must be radical. We do have the tools and information already in hand. Modern high-end neuro research is confirming the work of Tomkins and radical theorists like Lloyd deMause, who has bravely given us a history of childhood that introduces a context by which to understand why we are so confused. I repeat part of the above quote:

Can anyone really give an argument fully adequate to the horror which is father-daughter incest... or having sex with animals, or mutilating a corpse, or eating human flesh, or raping or murdering another human being? Would anybody's failure to give full rational justification for his revulsion at those practices make that revulsion ethically suspect? Not at all. On the contrary, we are suspicious of those who think they can rationalize away our horror, say, by trying to explain the enormity of incest with arguments only about the genetic risks of inbreeding. (*ibid.*)

This certainly seems convincing, but it does beg some questions. If we are willing to go along with Seneca and really commit to the belief that we are all human if we are to be a community, then it is more complicated. That is, we have a history. Dr. Kass snatches "incest," and bestiality out of the air as acts that are in themselves and somehow have been seen as such, vile and repugnant, *always as we see them today*. Whereas the facts are they have not always been seen as such. In light of sociology, anthropology, psychology, and now what is called psychohistory, I must say I see them certainly not so much as repugnant **but as** unhealthy and not optimal. Is that too clinical a stance? No, I think not. It is a stance without "high drama" where no high drama is needed.

We have to be careful to attack the act, and not the actor. And most controversially we must understand that for the actors of these acts revulsion may have been and may be the furthest thing from their mind and on the other hand they themselves may be thoroughly repulsed with themselves but yet compelled to act through other overwhelming emotion but again *they* might not be. I mention Lloyd DeMause because he is the only researcher I know of who has documented the history of childhood and the ubiquity of child sexual abuse throughout the ages. This seems a long way from the focus of this paper, but Dr. Kass includes these issues of incest as ultimate examples of eidetic repugnance so I address them. What DeMause does is shows us, in a sense, how non-repugnant these acts have been throughout the ages, that human sexual desire is profound, powerful, and overwhelming ***and will be satisfied***, and that our modern repugnance is actually something quite new and born of a slow progression *in our ability to empathize with one another*.

The Concept of Dissmell

So in that spirit, how does repulsion inform us? What is going on? In terms of the innate biological view, and in particular the Tomkseian view, revulsion and repugnance would translate singularly or in some combination into the emotions, *for the most part*, of disgust, dissmell and shame. Dissmell, a term unique to Tomkins, is that feeling of encountering something we wanted, but now, from a distance, find is rotten, such as the food container that has been in the back of the refrigerator for two weeks. Disgust and dissmell have evolved to protect us from putrid and poisonous food. Taking in something we once thought edible brings on disgust. With dissmell, the upper lip goes up symmetrically and the head goes back and we do not ingest the desired object.

In this context, it is often tempting to avoid any discussion of shame, as Tomkins' has a very technical definition of shame. Also, it is a powerful and much misunderstood word, particularly because people use it in opposite ways. That said, the definition expressed here says that the moment of interruption when we wanted something, were interested in something, and not gotten it, is a moment of shame. That moment and feeling of shame may certainly be accompanied by other feelings such as dissmell and disgust. We still want it but it is out of reach. I often call this a moment of confusion and or hurt. Think about a time when you did not get what you wanted? How did thinking about that moment make you feel? It is also the moment when we are experiencing joy and are interrupted or shame is "the interruption of ongoing sustained positive affect(feeling or emotion)"

Returning to the idea that we should be repulsed by cloning and stand in awe of the importance of what we are doing, Goya's painting "Giant" comes to mind. I quote the Metropolitan Museum of Art website about the painting:

Evoking that uneasiness that wells up in us at the first thought of some unfathomable power, Goya's "Giant" is staggering. This rarity ranks with works by Dürer and Rembrandt as one of the most impressive images ever printed from a copperplate. Like a mezzotint engraver, Goya proceeded to scrape highlights into metal previously roughened with grainy aquatint. Thus he sculpted this gargantuan colossus—Prometheus, Zeus, god of war—or what you will, out of darkness. Everything that held Goya in awe seems to have been compacted into this mysterious, ominous being.¹⁵

If repulsion is some compilation of innate feeling that ends in your now wanting to expulse what has already been taken in or, through dissmell, avoid that which was at first attractive, how does this help us?

To answer this, I ask what is it that drew our attention to these ideas, these activities, in the first place? Again, we did not ask for these questions, rather, our history has brought them to our doorstep. I venture this explanation: What I think we experience (think and feel at once) is something akin to Goya's "Giant" being equivalent to ourselves, holding ourselves in our own hands. This of course is not what the painting depicts, but the power of the painting is in giving us a sense of gigantic size and the complex emotionality of the giant permits us to read much into the image. We are in an impossible position: I do not want to destroy, damage, or change myself but *I can*.

Martin Heidegger said it in this way:

...The American chemist, Stanley, had this to say: "The hour is near when life will be placed in the hands of the chemist who will be able to synthesize, spilt and change living substance at will." We take notice of such a statement. We even marvel at the daring of scientific research, without thinking about it. We do not stop to consider that an attack with technological means is being prepared upon the life and nature of man compared with which the explosion of the hydrogen bomb means little. For precisely if the hydrogen bombs do not explode and human life on earth is preserved, an uncanny change in the world moves upon us.¹⁶

But then again I might change myself for the better! We are interested in ourselves. We are interested in our complexity. But in general, we are only interested in ourselves and our own complexities—as individuals and as cultures. This is difficult. What I mean is that we, on most levels, simply want to live and enjoy this life. We go through life coping in this way and that way, hoping daily to feel satisfied with others and ourselves in some way. This activity takes place in a life-world that mostly goes unanalyzed. We define our purpose and work toward it. Purpose works

best when we give and receive interest, when we love. The image of holding ourselves in our own hands is actually a feeling, first of shame. A feeling of "*I understand the problem, or I understand something very important is going on here and I do not have an answer, nor do I think there is one.*" I suffer shame when confronted with the magnitude of this situation I did not ask for. At some level I understand that being human has changed. This is a great interruption in my interest in going about being human. All that is human comes into question. It is this shame that then leads to revulsion. "Let me throw this question out, let us be done with it!" This shame can be commingled with anger, disgust, dissmell, fear, and distress, to follow Tomkins.

Understanding the Complexity of Emotions

Dr. Kass is on the right track, but he has painted with too broad of a brush and he forgets about interest, from whence he came. Without looking to where we come from, our revulsion leads us to justifications—as we are always justifying what we have already felt.

These justifications can be in the form of calling such things "evil" or looking to some immutable truth or, on the other side; it can lead to throwing our hands up and saying that nothing matters anyway, as everything is equal, and all is circumstantial. Once again, is there a middle ground?

More than 25 years ago I wrote a college essay¹⁷ on the subject of cloning, many of whose concepts have stayed with me. That essay was in great part influenced by my mother who, some years before, had written a college paper on questions of genetics and, later, an early article by Dr. Kass about in vitro-fertilization, and finally by

having the pleasure of having had Dr. Kass, for a very short while, as a mentor in medical ethics. In that essay, I referred to Martin Heidegger and his division of thinkers into calculative and meditative. He asks us how we can come to have “meaning” in life and I ended the essay saying that we needed to appreciate “the complexity of the task.” This essay is a continuation to that college essay, as that complexity has become clearer to me. My understanding of the complexity has increased tenfold through the study of emotion.

Our study of emotion helps us parse out what might be the meaning of our revulsion—if we do indeed feel revulsion, shame or disgust. My view is that we are left confused and have not really “pushed” through the problem but simply rejected it, if we continue with our negative feelings. Negative feelings need to be resolved. Negative feelings are, in the system I am expounding, not really “negative” in the sense that they should be seen as “information.” Information should be used, the feeling should be resolved. Negative feeling is best resolved when wedded with interest.

Let’s take stock:

- Kass is right to talk of his emotional response in relation to biotechnology.
- He cannot fully explain the power of the introduction of this emotion.
- We know a great deal of useful information about where these feelings come from and what they mean.
- Any thorough appreciation of his position needs to analyze the complexity of the emotion involved. Silvan Tomkins’ theory helps with this analysis, particularly his ideas about shame and interest.
- Kass is right in saying that there are no more important questions than these. That we are dealing with and facing them can be shaming, but that it helps little to let shame turn to revulsion and hope that that resolves it.

...

Most of our confusion comes from recruiting emotion in the service of normative concepts instead of understanding first what the emotion really tells us about being human. I will argue that our bad feelings tell us that we have lost a connection to others.

Any individual can be interested in anything. Anything, unfortunately, can give any particular person joy, from the simple "you like tomato and I like tomato," to one person loving to oil paint, to another getting a thrill from killing. This truth is hard to bear and contemplate, but it is central.

Scientists are interested in solving all the biomechanical problems that arise because that is what they do. But we should certainly be cautious. As Bronowski says, science is really a mop-up operation of what happened, not because a committee was formed, but because someone had the *interest* to pursue the problem. Someone enjoyed thinking about it! Once the problem is there, science is going to deal with it, must deal with it. The world presents us with things we did not ask for or originate. Likewise, ethics is a mop-up operation. It is in terms of science and technology, the science of the science. At best, it helps us manage what man and nature have wrought, because man and nature will always create things as we cannot control man's *interests*. Again, we certainly should try and put the breaks on. Emotion is a breaking force, but we must understand it more than we do. In fact, the whole force of Dr. Kass's argument insofar as he uses emotion is a breaking force. He is saying, "stop and listen to yourself!" or feel yourself. Feel your repugnance to these ideas and you will find that you really do not want to go forward.

I, however, am saying that Dr. Kass cannot claim that we all feel the same about the same things except for one thing, and one thing only: *we all feel interest in other human beings*. That is the one universal. We start with the nervous system being in

a positive state reaching out into the world and exploring the world and searching primarily for connection with other humans. For Tomkins, repugnance, shame, disgust, *et al* are auxiliary feelings. That is, they have to have something that comes before them. Something had to be wanted first. Something had to be wanted and not gotten for the negative feeling to be triggered whereas interest needs nothing to precede it.

I believe we can understand it more if we look at how emotion, and in particular interest, is really the “glue” to keeping the parts of the whole together, the reason why neither the positivist nor the purely normative win out.

Finding Common Ground

If either side is steadfast tension increases and repugnance, shame and disgust might, and do, ensue. How do we find common ground? I argue that the only common ground is to understand the emotional dynamic that I just described—to understand that no matter the ideology of either side, the mechanics are the same. Each side has the same emotions, and must live by the same emotional laws.

Misunderstanding leads to more frustration and, possibly ultimate defeat of anyone’s particular task.

To agree with Kass’s repugnance argument is to lead to an attack on those that contemplate using the technology. Such an attack would be unfair. To embrace the feeling of repugnance would be to succumb fear of what might happen, and fear of unintended consequences. Again, Bronkowski:

A society holds together by the respect which man gives to man; it fails in fact, it falls apart into groups of fear and power, when its concept of man is false. We find the drive which makes a society stable at last in the search for what make us men. This is a search which never ends: to end it is to freeze the concept of man in a caricature beyond corrections, as the societies of caste and master-race have done. In the knowledge of man as in that of nature, the habit of truth to experienced fact will not let our concepts alone.¹⁸ (p. 45)

A better understanding of emotion might clarify the major issues of this debate in some key ways. We need no longer to be encumbered by thinking in a mind-body duality, as the biology of emotion means that that supposed duality is actually a cohesive whole. As a physician, I am secure in seeing the body as a mind-body integral, we must bring the "mind" back into the body. Also as a physician, I am held by the vow to "first, do no harm." Within these confines, I agree with Dr. Kass on the point that reproductive cloning should be banned simply because we cannot guarantee any kind of safeguard against producing damaged children. However, I do not agree that "repugnance" need be the basis for banning such activities. Rather, I say that *my interest is that babies are healthy*. I would rather that my interest is to *maximize their ability to carry out their interest so that I might share that interest with them*.

The trouble is the interest of science. The scientists go full steam ahead as we have just recently seen in the work of Doctors Hwang Wuk-soo and Moon Shin-young on human cloning in Korea. However, an interview with Dr. Hwang¹⁹ suggests that he fits with Bronowski's interested science model. Dr. Moon said in response to criticism "I know that there is a moral controversy. But we continued our research in the belief that this success will give hope to patients with critical diseases and make new progress in medical science,"²⁰ said Moon Shin-young, I think this is a clear statement of interest. He is stating his interest as a scientist in curing disease and

leaving the moral issues to others. Such as Bronokowski, again, tells us ethics is a "mop-up" operation.

Specifically, Dr. Hwang and Dr. Moon claim to have successfully cloned human embryos and extracted a colony of universal stem cells. The quality of life issues and how cloned children would be manipulated are, of course, irrelevant points if reproductive cloning does not go forward. However, I will address the issue of quality of life. Once one understands emotion in this context and defines the health of the child by its shared interest and joy with its parents, then how the child came into being has lesser importance. However, there may be relevant studies concerning in vitro children, surrogate children, etc, and how they have fared. I am not familiar with such literature. My guess is that such children are no less happy than the population in general, again because the determining factor is their parenting.

The danger in arguing that we need to protect adults from themselves as they will misuse technology is that we make a world of "them and us." We must be very careful to be inclusive and not judgmental. Saying, for example, that there is already much "mischief," as Kass does, does not advance the argument. It is not productive to approach the problems presuming the best and not the worst of people. Dr. Kass argues this:

Can anyone really give an argument fully adequate to the horror which is father-daughter incest...or having sex with animals, or mutilating a corpse, or eating human flesh, or raping or murdering another human being? Would anybody's failure to give full rational justification for his revulsion at those practices make that revulsion ethically suspect? Not at all, on the contrary, we are suspicious of those who think they can rationalize away our horror, say, by trying to explain the enormity of incest with arguments only about the genetic risks of inbreeding.²²[insert page number]

I claim we are much better off, despite what we think we see around us, than we have ever been. That is, incest, rape, and bestiality have always been problems, and it is likely that these activities were, in the past, quite common and still are. I return to our very, very long history of development to emphasize that our current norms have been very begrudgingly won.

I have already mentioned Lloyd deMause²², who can further our understanding of human behavior in the context of history. DeMause helped found a controversial school of thought called "psychohistory." As Tomkins has inverted the importance of cognition and emotion, so has deMause inverted the study of history. Instead of chronicling the major events of history, he outlines a history of such horrendous childcare that most who read him have great difficulty getting through the material. He states "childhood is a long nightmare from which we are just now awakening."²⁴ He documents and divides child-rearing practices into five stages: Infanticide, Abandoning, Ambivalent, Intrusive, Socializing, and Helping. He claims the third stage only came about around 1300 AD and that the Helping stage has only been around for fifty years. Many of us carry an idea that childhood is supposedly idyllic, yet most of our own childhood was not. We all, in other words, disavow much of our reality just as we disavow most of our emotion, as I stated at the beginning.

Infanticide takes place daily around the world, children are routinely abandoned, killed, or mistreated in many ways. Given this, it is not surprising that one would think that cloning would inevitably be used in horrible, unethical ways. However, we must hope that the world's cultures are becoming better and more loving and ethical, and that children on the whole will only benefit from these technologies. The United StatesOur societies prosecutes people for child abuse and some pregnant

mothers for drug use. These are great advances in our common psyche, as we might not have cared at all about these acts until relatively recently. However, the reoccurrence of such acts indicates that the human race has a long way to go. It is important to be clear here. I simply see punishment of these acts as advancement as it is recognizing the value of the child. The next advance will be to see the value of what we call the "perpetrator" and realize they only did what they did due to their being treated similarly for what they are now being punished for. So the message is that we must hope for the best and hope that we are ready to always take the next positive step.

So in relation to Kass's comment about our repugnance for incest and rape, etc, we should not jump to the conclusion that, collectively, we are as a group yet sufficiently repulsed by any of these horrors. Sufficiently repulsed by them to now get sufficiently *interested* in them to really understand them and do something about them. And if you follow this argument, as I said before, there really need be no high drama once our history is understood, these acts come not to be horrors so much as the way people are and have been though thousands of years. Cultures have justified any and all means to assure their survival *among these means have been many ritualized behaviors from rites of passage to human sacrifice* as well as the garden variety yelling and screaming that we seem to so easily forget about when we walk out the front door. Simply put, *human beings have always have had to process overwhelming negative feeling from time to time and there are only so many ways to do this.*

So for Kass to ask me to be repulsed by incest does not get me very far. It is again simply to push the problem away. Do we not want to understand the problem? Frankly, I must say that the more interest I have in these problems the more and

more the negative feelings subside, the less disgust repugnance and shame I feel about them. Why? Because I understand their origin. The French say "To understand is to forgive." Is not that what is most human rather than repugnance? Repugnance that can only end in saying this human is indeed "other" and is to be left as "other"? This is the true "slippery slope" for me. It is something then quite different if we see incest as something that has existed for a very long time. These acts have truly traumatized children and adults, but they must be recognized as how humans manage their own overwhelming feelings. And unless we understand that, we will disavow the true enormity and communality of the problem, and will not use our interest in humanity in the service of healing. As a therapist, accepting this has been incredibly helpful to me. Understanding that helps me to not be repulsed, but rather hurt for our lack of evolution and caring for one another.

Of course there will be major abuses of biotechnology, and of course Kass is right to caution us, as I have shown, that we not necessarily slip backward as a society. There is nothing in the "facts" and procedures of these bio-techniques that will lead us to necessarily lose the ground we have gained in child rearing over the millennia.

Maximizing the Common Good

So I argue we have a history. We are grounded in biology. We are emotional beings. That emotion has played a great part in our history and in its negativity has obviously taken humanity down many unpleasant roads from war to incest but overall I argue that we are progressing. With these points in mind that I hope will give a context to the discussion, I turn now to a number of derivative issues that fall out of cloning and stem cell research.

First: begetting vs. making. We have very little natural connection to children besides the very important glue of neurological interest. That is, "natural" childrearing is a historical myth and if good practices are found in the past, they are very rare. Lloyd deMause shows us that the act of begetting has, throughout history, rarely been a "romantic" act. Yet, the act of begetting is an important one. Planning, having, and caring for a child implies great interest in the child. Hopefully, this interest will grow as we grow understand and appreciate emotion.

Another common argument is that a cloned child could potentially be denied a full compliment of genetic material. This goes to the central issue of repugnance: we are shamed by our ability to change the body as a whole. Whether this concept will change, or whether it will be as important as it seems now, remains to be seen.

Cloning to produce stems cells and stem cell lines will undoubtedly continue to progress. If we can hold ourselves in our hands and be shamed, we can still be excited about the promise of stem cell research. It is difficult to see on what grounds we would deny our children and ourselves the benefit of relief from disease that stems cell research holds.

Near the day in February 2004 on which the cloning of human embryos took place in Korea, a new planet was discovered, which will possibly be called Sedna. This draws a parallel to the subject at hand. We are comfortable with our 7th grade image of the solar system: nine planets fixed by Newtonian laws, revolving around the sun. It is potentially upsetting that we now find that there is yet another planet—and, in fact, there are probably many more planets. This new discovery points to a sort of Enlightenment period we are going through. Along those lines, we are confronted with frequent notices of large asteroids coming "close" to earth. It is a time in which we are learning that, for all of our cognitive abilities and efforts to order the world,

the world is not cooperating. The Solar System is coming to be seen less as an ordered place and more as a random place, full of unknown objects and trajectories. In the case of the large asteroids, the world can be very unfamiliar and insecure. Such too it seems the case in all areas of life, from the micro to the macro, and everything in between. This uncertainty can cause anger, shame and disgust—indeed, repulsion as well.

My argument may seem existential and perhaps even solipsistic, but I think it is not. Tomkins posits that nothing can come into consciousness unless it passes through our core feelings. Therefore, we see the world in very personal ways. I have already stated several of those ways that have become very formalized. Do we see life as a random conglomeration of facts or are there universal truths? Is light made of particles or is it a wave? The Heisenberg principle says we cannot know the answer to the latter question, and I say, in regards to the former, we cannot know whether life is ultimately random or ordered in terms of being human. What we can know is that life is unknowable and look to the dynamic between the two ways of looking at the world.

This tension is a phenomenon that I have come to call an emotional one. We can become lost in the tension of our negative feelings, making the problem worse, or we can learn to use the negative as an opportunity to create a renewed interest in life, its complexities and find new solutions to the same problems. Heisenberg says we cannot know, as does Socrates, but life is in the trying. Not knowing leads to confusion. Confusion can lead to shame and characteristic ways of dealing with it, such as withdrawing or avoiding the problems, or believing we have brought the problems on ourselves and that we deserve this fate. We can blame others. Or we can redouble our efforts and work with the facts and give meaning to them.

The habit of testing and correcting the concept by its consequences in experience has been the spring within the movement of our civilization ever since. In science and in art and in self-knowledge we explore and move constantly by turning to the world of sense to ask, is this so? This is the habit of truth, always minute yet always urgent, which for four hundred years has entered every action of ours; and has made our society and the value it sets on man, as surely as it has made the linotype machine and the scout knife, and *King Lear* and the *Origin of Species* and Leonardo's *Lady with a Stoat*. (Jacob Bornowski, p. 46).²⁵

In light of these choices, Dr. Kass's solutions are a mixed bag. As I have already said, I do not support reproductive cloning. But it is probably inevitable that it will. What then? We can decide the issue with our monetary support or lack thereof, as it takes a lot to support such activities. We will or will not continue to fund the Hubble telescope, certain cancer research, and future wars—and life's course will be different based on those decisions. It has now been more than thirty years since man has gone outside Earth's orbit. Based on these realities, we probably can decide not to go down the road of cloning. Whatever we do, let us go down the chosen road not because of anger or disgust but because we have looked at ourselves.

In summary, Dr. Kass introduces emotion into a debate that for most, at one level, would seem unemotional, as it deals with science—what many would feel is a source of much good. Is it not good to use these technologies to heal disease, to heal ourselves? Is it not good to use these technologies even to reproduce ourselves in our own likeness? From one perspective, it seems perfectly "rational" to do these things. As I have tried to show, rationality must first be informed by an individual's or group's interest. We have interest in our health and interest possibly in making ourselves in our own image. The former is seen as much more rational than the

later. But Kass says that many of us are repelled by both trains of thought—and much more by the thought of reproductive cloning. I have said that neither side really appreciates the whole issue, be it from an interested or rational viewpoint, or from a repugnant viewpoint. What we need is a true appreciation of the role of all emotion in the debate and, in this case in particular, the role of interest as the biological glue that holds humans together in societies. Interest in others leads to joy, what we all want.

I have argued that interest and a general understanding of emotion undercuts the great philosophical dichotomies we find ourselves mired in most of the time. The world is not a simple conglomeration of facts, nor is it run by immutable truths. And it could not be so, if we could only articulate the facts or return to sometime when we “knew” them. I agree with Bronowski when he says: “A civilization cannot hold its activities apart or put on science like a suit of clothes—a workday suit which is not good enough for Sundays.”²⁶ (p. 41)

Before repugnance (disgust, distaste, anger, shame), there is interest. I have shown that repugnance does have a basis in logic but we need to start at the right place, with interest. On the scientist’s part, there was simple interest in a problem and the joy of solving it. On societies’ and the philosophers’ parts, there is an appreciation of the ultimate issues at hand. Such issues must surely be of interest to philosophers, individuals and society. Once interested are we overwhelmed and reject out of hand what is at hand, or do we renew our interest? As Kass says, repugnance is not an augment. I say repugnance; disgust and shame can lead to a withdrawal from the issues and hinder our understanding much of the time. We may find incest repugnant but to withdraw from it solves nothing, and leads to disavowal or, at worst, attack. It leads ultimately to calling another human “other.”

Negative powerful feeling is important. It should be, above all, informative. It should inform us that there is something important and, even, special to explore. It should lead to renewed interest of the complexity of the task. It should lead to refining and redefining the issue at hand and evaluating positive options and implementing change so that we can regain control over our own destiny. I claim that in order to achieve that, we have only to understand the power of *interest*, biological and social.

Emotion and reason start as biological components of our being. They have no content until we give them content. They are tools—pure and simple. It would seem that we might give evolution the benefit of the doubt and say that the two, emotion and reason were meant to work together. Tomkins said it best in saying that "*reason without affect is sterile and affect without reason is wild.*" We want them to work together. That said I am "pulling a string" to close the bag and I see that string as one of the positive emotions and that is the emotion of interest. Kass in contradistinction bases his argument on the negative emotion of repugnance. It seems to me a truism that you cannot get a positive from a negative. And I have argued, again, that trying to rely solely on emotion does not work because emotion has no intrinsic meaning, except in a personal way as Nussbaum articulates and as Tomkins' theory lays out. So am I not using only emotion when I turn to interest? I think not as I am arguing that interest leads back to connection with others and thus to reason whereas negative emotion cannot lead to connection and reason. Interest leads to trying to solve problems. And to solve problems we need to use reason. We need to define the problem and evaluate situations and move towards solutions to control the situation. But we do this by returning once again to emotion and to mutualizing interest amongst us all.

Let us state the case one more time. I state that interest is going to push scientists to pursue many pathways. They are interested in things whereas many others and we may indeed be personally repulsed by them. What truly resolves the issue and what is certainly difficult is for those that feel repelled to overcome this feeling and look for common ground. For it is through that effort that there will renewed human connection and the best likelihood that interest will be turned toward the maximizing of the common good.

This becomes our moral framework. The fear of complete relativity seems to me to melt away because we are grounded in our biological need to be interested in each other and search out what will maximize that interest. The normative, too, melts away because authority loses its power because if I am truly interested in you I have to listen to you, and if you are interested in me you have to listen to me. We have to engage in mutual empathy. This seems to me to set up dialectic, the ingredients for a continual creative process that over time will reduce negative feeling more and more. Cloning is not intrinsically repugnant. Repugnance is, again, an auxiliary of the emotion interest. I first had to be interested in something. What was that something? It seems to me that if I am interested in cloning, I am interested in the potential of a pluripotential and multiordial relationship with the human being to be based on interest, on mutual interest. I want that human being to be able to participate in being interested in the world in top form. I thus would want to be able to guarantee, to a very high degree, that the outcome of the cloning procedure would achieve that end. That is: do no harm.

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