

# CELL PHONES AND ADOLESCENT DEVELOPMENT

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As Child Psychiatrists, we are concerned about the impact of culture on psychological development. Unfortunately, we usually think of culture in narrow terms and often focus on one or two disjointed aspects of a complex belief system. For example, we tend to concentrate on novel expressions of anxiety, or exotic culture-bound disorders. Because we view these through the lens of our culture (ethnocentrism) we can easily overlook or misinterpret their larger structural or functional roles.

For us, the cell phone is a piece of technology that is now an undeniable and essential part of our material culture. If we look deeper into the emergence of this phenomenon, there is more than meets the eye. If we depart from the amazement of this technological marvel, we enter the realm of beliefs and values. This new technology changes our lives in many unanticipated directions. Associated with this new utilitarian “thing” is an emergence, evolution and diffusion of new social norms, ideas, and beliefs that surround its use- this is the essence of cultural change.

How and why did cell phones become so popular? A walk through many high schools or more specifically, college campuses may provide clues. Firstly, there is a nearly simultaneous “phone-to-the-ear” ritual that begins as soon as students leave a place. Who are these young people calling? Most will acknowledge calling friends or parents. If we consider other contexts, we will obtain different answers. For example ask a drug dealer, real estate agent, rescue worker, or terrorist and you will get an entirely different set of contacts and reasons. If we search for a common ground among these diverse groups, it is a means of rapidly contacting others, sharing information, encouraging or coordinating action, or economic transactions. It matches our need for speed and efficiency, a set of values that may be alien to other users

in more traditional societies.

So where does this technological innovation fit into our social norms, or our ideas about relationships, or our sense of individualism? Let us begin with the role of cell phone in the transformation of the psychological and social self during adolescence. Because we value individualism, we tend to view the cell phone in terms of separation individuation, autonomy, and individual identity.

In the extreme, the cell phone use can represent a regression or developmental arrest. The nearly instantaneous and continuous contact with parents or family can alter the second great phase of separation-individuation. From a less cynical point of view, the cell phone can also be viewed as a transition object. It can function as an electronic teddy bear during the great metamorphosis in object relations. Depending on one’s level of development, it can permit touching base for re-assurance or support (refueling), social referencing (checking home for what might be “dangerous”), rapprochement (checking back during times of crisis or distress at failing a test), or an electronic gateway to object constancy and mature relationships (changing patterns of calling from parents to a new significant other).

If we step outside this psychoanalytic frame of reference, cell phones serve additional purposes. Although they are tools, we can assign cultural functions and meaning to their use. Cell phones allow us to structure the world into classes of events, mental constructs or groups of people. The rules that govern their use also become part of our mores and mix with other systems of belief- such as the 10 commandments of cell phone use, folktales (anecdotes) about how they saved a life or brought two lovers together. The cell phone has both practical and utilitarian uses as well as functions that are independent of their qualities as a communication device.



For example, cell phones can become totems. Instead of animals being sacred to our tribe, the cell phone (brand or networks) symbolize the unity and perhaps spiritual life of age-stratified tribes. The list of frequent contacts stored in these nifty machines denotes a tribe, and text messaging or exchanging digital photographs help solidify membership. I suspect we see elements of rites of passage tied to their use- especially when technologically challenged people like the author finally learned how to use them. I passed from the world of the uninitiated and ignorant to a fledgling apprenticeship among the enlightened- another example of structuring the world into classes of things or beliefs.

Cell phones can help define one’s social status- always having someone to talk with conveys a sense of membership and importance. It can also become a yardstick for measuring status. The obligatory phone conversation while waiting for class or walking on campus may separate important people from the peasantry the way new cars or expensive wardrobes do. In my generation we measured our status by the length of our hair, a beard (no matter if it was a stretch to call it one). or the number of “real” holes in your blue jeans. Chucka boots, or bare feet were signs of tribal membership, wingtips and ties were signs of apostasy. But Dylan was right- the times did change.

For students whose narcissism and egocentricism are still dominant forces, the public display of phone prowess may be a modern form of display ritual- the relationship between a cell phone and sexual displays replace a peacock’s tail feathers, chest thumping, and estrous color changes signaling sexual receptivity. Those who speak loud enough to be heard 50 feet away be signaling their virility and potency, suggesting that cell

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## GOOD NEWS: CELEBRATING THE GOSPEL OF SCIENCE

by Assad Meymandi, MD, PhD, DLFAPA

*(Editor's note: With Dr. Holden Thorp's ascendency to Chancellorship of UNC at Chapel Hill, WCP lost his most stimulating and interesting contribution to this space. We are searching for someone with Dr. Thorp's rich intellectual background, experience and protean abilities to continue the column. If interested in undertaking this very challenging and pleasant task to please contact me.)*

In the limited life span of Neolithic man, roughly ten thousand years, we have experienced stunning advances in knowledge, humanities, civil and individual rights; and with the birth of our beloved America, a perfection and maturation of the rule of law. These are all good news, indeed Gospels. But what stands out, if one would do a meta-analysis of all factors advancing the cause of life and advocating the dignity of humankind, is the field of science and its contribution to improving the quality of life.

Let's take the case of understanding and treatment of schizophrenia, a dreaded brain disease. Yes, I said brain disease. We have come from the days of demonic etiology of schizophrenia, the days of snake pits, and inhumane treatment of patients with schizophrenia (note: I did not call these patients schizophrenics.) The life giving transformation of care by pioneer institutions, such as England's Bethlehem Hos-

pital and our own Dorothea Dix Hospital, followed by the emergence of community psychiatry are eloquent testimonies of the evolution of care of severely ill psychiatric patients.

What is currently filling our psychiatric literature and journals is most promising. We are in the throes of making new scientific discoveries based on neurochemistry and high resolution MRI. We are learning that schizophrenia is a diseased or disarrayed neuronal web in the central nervous system, especially the brain.

Scientists are in hot pursuit of finding an effective pharmacological agent to help treat schizophrenia. We have learned about the cholinergic neurotransmitters, the muscarinic and nicotinic neuro-receptors and dopamine1 and dopamine 2 agonists and antagonists.

A new group of drugs now under investigation, cholinergic agonists, mediated by two families of receptors, nicotinic and

muscarinic receptors are in the final phase of clinical investigation.

The nicotinic receptors are ligand-gated ion channels formed by pentameric (5) combinations of different a and b subunits, as well as homomeric (consisting one repeated unit) receptors. Activation of the nicotinic receptors leads to a rapid increase in sodium and/or calcium conductance that increase neuron activity and neurotransmitter release. This explains why persons afflicted with schizophrenia have such a hunger for cigarettes.

Saint Paul, a fascinating brain, and an elegant stylistic writer summed up the future of mankind in offering hope, charity and love. What science does for us is a combination of all three. It takes a tremendous amount of motivation and discipline (charity), tenacity and optimism (hope) and dedication and altruism (love) to pursue science. ∞

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phones might be the "Viagra" of a younger generation. Conversing while driving 75 miles per hour may signal fearlessness and risk taking, and signal traits to be admired in social and economic settings.

For human ethnologists, the cell phone may provide clues into territorial and dominance status. The call list defines a subgroup that belongs in this space. The emotional response to intruders, especially telemarketers or the National Security Administration creates both emotional responses and a call for territorial defense. Although territorial boundaries are electronic and digital, they share features of a troop defense of territory and I suspect a growing list of ritualized postures and gimmicks to protect the integrity of this "cyber-range".

Likewise social status and the dominance hierarchy may be observed in how cell phones are used. Dominance can emerge based on the sequence of calls- who calls whom. A second may be the hierarchy of callers- who is given deference or called first. This pattern has some parallels with grooming and extends the speculation that language and verbal communication have replaced grooming as a means of reinforcing the social hierarchy among nonhuman primates. In this context, the lower status groom those higher up the dominance chain. In this troop, "don't call me I'll call you" or "call any time", or "let me call you back or put you on

hold while I get this call" may a deeper significance for dominance.

The cell phone is changing norms surrounding mundane conversations, business transactions and private uses, dating rituals and intimate conversations. The cell phone makes heretofore private communications, public. As a new wrinkle for Shakespeare, the cell phone would elevate is penchant for eavesdropping to a delicate art form. There are also plenty of negative views regarding lost privacy, intrusiveness, and the curse of constant availability. The movie, *The Gods Must Be Crazy* provides a humorous metaphor for our dilemma. In this tale, the pilot of a passing airplane (Gods with wings and excessive flatulence) throws a single Coke bottle out the window. It lands near a group of Kalahari Bushmen-! Kung. The useful tool leads to a temporary expulsive from the Garden of Eden.

The "new technology" also creates disturbing changes in everyone. But to this anachronism, cell phones can also smother and entrap. Sartre wrote of hell as this life with no exit. Is opening the cell phone comparable to being bound like Prometheus and tormented? Prometheus, a titan, stole fire from the gods and gave this knowledge to mankind. The "tool" change humankind forever, but the revolution Prometheus wrought was a costly one for him.

In summary, the cell phone is more *Continued on page 37*