Will Benefits of Communicating Face-To-Face Drive Widespread Adoption of Telepresence for Use in Commercial Negotiation?

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ABSTRACT: People are famously egocentric, short-sighted, risk-averse, competitive, and insecure. All of these human characteristics are in play during a face-to-face negotiation, where a negotiator’s ability to control his own characteristics while observing those of his opponent can have a significant impact on the outcome of the negotiation. While highly effective, face-to-face negotiation suffers from the expense of drawing geographically disparate parties into close physical proximity. As a result, alternatives for business have been developed, such as telephone, and email, but this paper will demonstrate how each falls short of the “personal experience” of face-to-face negotiation, and how such a deficiency oftentimes causes more harm than good. This paper will then argue that the inefficiency of these “intermediate” technological bridges of remote negotiation, coupled with the rising cost of sending employees on business trips, will cause business and governments to embrace “telepresence” technology such as that which was just unveiled by Cisco Systems which allows users to see, hear, and interact with 3-D projections of real people reacting to situations in real time.
INTRODUCTION

“If we don’t agree, we lock ourselves in a room until we come to an agreement.”

This is how John Thain, then Co-Chief Operating Officer with The Goldman Sachs
Group, Inc., described how he and the other two chief executives of this firm handled
particularly tough decisions. Despite the ubiquity of e-mail, phones, and fax machines, business
executives still fall back on the balm of the “personal experience” to solve difficult problems.
This tendency for business professionals – and humans in general – to prefer full-sensory
personal meetings to solve problems led to the evolution of “telepresence” technology that
enables parties in different geographic locations to meet together as though they were sitting and
speaking in the same room, at the same table. Will businesses drive widespread adoption of this
fledgling technology for use in negotiations?

This comment supports an answer to that question in the affirmative. Section One
explores the dynamics of negotiation, and why firms prefer sending representatives to negotiate
deals in person. Since this contact comes at a great price, Section Two presents telepresence
technology as a new alternative, and provides background on what it is, how it is used, and its
notable advantages and disadvantages. Section Three examines the alternatives to telepresence
technology – phone, e-mail, and videoconferencing – and highlight the particular drawbacks of
each medium in the context of negotiation. The comment concludes by suggesting that the

1 Emily Thornton, Wall Street’s Lone Ranger: In a world of megabanks, can CEO Hank Paulson keep
http://www.businessweek.com/magazine/content/02_09/b3772001.htm.
2 See id. Thain, Paulson, and Thompson (the trio of chief executives in charge of Goldman Sachs at the
time) would typically exchange up to 50 voicemails per day in the management of the firm’s daily
operations, but would reserve face-to-face meetings for difficult problems lacking consensus. See id.
3 A note to avoid confusion: the term “telepresence” will be used when referring to the technology as a
medium, and “TelePresence” will be used when referring to the telepresence product marketed by Cisco.
4 Cisco Systems, Inc., Accelerating the Pace of Business: Cisco TelePresence,
confluence of these factors will encourage widespread adoption of telepresence technology by businesses\(^5\) for use in negotiation.

I. NEGOTIATION AND THE (EXPENSIVE) BENEFITS OF BEING FACE-TO-FACE

Negotiation is used more often than arbitration, mediation, and litigation to resolve disputes,\(^6\) and can be loosely defined as two or more people communicating with each other to reach an agreement.\(^7\) There must be “sufficient exchange of information to identify potential tradeoffs among the available issues” to arrive at agreements that both parties will honor.\(^8\) The depth of the rapport developed between the negotiators is a “powerful determinant” of whether a sufficient level of trust is created to allow for the type of information exchange needed to reach win-win agreements,\(^9\) and “nonverbal and paraverbal behaviors are key to building rapport.”\(^10\) While face-to-face communication has long been considered the “optimum” method of communication,\(^11\) what about it is so superior to talking on the phone, exchanging e-mails, or linking up via videoconference?

A. Face-To-Face Negotiation Allows For Widest Spectrum Of Nonverbal Communications

An observation of two negotiators engaged in a negotiation revealed the transmission of over 800 different nonverbal messages during the course of the thirty-minute meeting.\(^12\) Other studies have found that people derive as much as 90% of a message’s meaning from the

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\(^7\) Id. at 846.


\(^9\) See id. at 6.

\(^10\) See id.


nonverbal communication they receive in simulcast. Nonverbal communication includes all those “nonverbal stimuli” that are “generated by both the source [speaker] and his or her use of the environment” that may have potential value to the listener for use in interpreting messages. Face-to-face negotiations allow for each side to observe and experience touch (handshakes), eye contact, voice volume, vocal nuances, proximity, gestures, facial expressions, pauses, intonation, dress, posture, smell, word choice, and vocal sounds (paralanguage – like a gasp of surprise). Nonverbal communication is used to repeat a message (dismissively shaking ones head), accent a message (aggressively leaning forward), complement a message (hitting a table), substitute a message (silently nodding), and regulate the interactions of the various parties by indicating a desire to speak or that another party should stop speaking.

One study compared the information exchange in face-to-face negotiations and text-based negotiations, finding that only 7% of a message’s meaning is derived by naked text – 55% of a message’s meaning comes from facial expressions, and another 38% comes from the tone used to deliver the message. While a phone negotiation may offer a five-fold improvement in the amount of information communicated, it is a small consolation compared to the amount of communication potential left on the table simply by electing to forgo the in-person experience.

B. Nonverbal Communications Help Limit and Mitigate Costly Misunderstandings

A study conducted by Justin Kruger and Nicholas Epley, published in the Journal of Personality and Social Science, found that speakers, as compared to e-mail senders, are almost

13 Edward G. Wertheim, Associate Professor, Northeastern University, College of Business Administration, http://web.cba.neu.edu/~ewertheim/interper/commun.htm (last visited Nov. 30, 2008).
15 Id.
16 Id.
40% better at accurately communicating humor, sarcasm, emotion, and tone. The researchers concluded that the likelihood of a message being incorrectly interpreted increases as the stimuli available to the message recipient decreases. Another study found that speakers constantly monitor their own speech for errors while monitoring their listeners for signs of misunderstanding; this allows the face-to-face negotiator to rephrase or repair ambiguous statements where an e-mail or phone negotiator might not even be aware of the problem. Face-to-face negotiators are privy to looks of confusion or sounds of uncertainty that would not be discernable through the phone or e-mail, and are in a position to make corrections in real-time. Misunderstandings that are permitted to survive in a negotiation can cause delays in reaching agreement, and could even serve to sabotage the deal entirely.

The fight against ambiguity and inaccuracy of language is especially important in today’s globalized business environment, where commercial transactions between corporations of divergent cultures, customs, and languages are much more likely. Interpreters are used to bridge language and culture gaps, but without the benefit of nonverbal information communicated by the speaker, interpreters may not be able to make the best word selection when translating the message for the intended audience. It is easy to understand how slight variations in a message could provoke wildly different reactions from negotiators in a sensitive business transaction or a high-stakes international negotiation, and therefore why such negotiators would prefer to conduct

\[\text{Justin Kruger et al., } \textit{Egocentrism Over E-Mail: Can We Communicate as Well as We Think?}, 89 J. PERSONALITY & SOC. PSYCHOL. 925, 926-930 (2005), available at http://faculty.chicagogs.edu/nicholas.leeply/Krugeretal05.pdf.\]
\[\text{Id. at 933.}\]
\[\text{Boaz Keysar, } \textit{The Illusory Transparency of Intention: Linguistic Perspective Taking in Text}, 26 COGNITIVE PSYCHOL. 165, 167 (1994).\]
\[\text{Chantal Besson et al., The Importance of Non-verbal Communication in Professional Interpretation, Communicate! Webzine (Jan.-Feb., 2005), available at http://www.aiic.net/ViewPage.cfm/page1662.htm.}\]
negotiations in person – there is a world of difference between “we may not be able to accept this deal” and “we cannot accept this deal.”

C. Face-To-Face Negotiations Are Costly And Getting Costlier

While face-to-face negotiations are the preferred method of business negotiation, they come at a great cost that corporations and governments may be less willing to bear. Sending an employee to negotiate off-site incurs a litany of costs, such as hotel-booking, car rental, and airfare, in addition to the productivity loss caused by travel that may not be as obvious on the balance sheet. Corporate travel managers looking to control costs in light of the recent global financial crisis are likely to slash travel budgets, as “corporate travel is often a company’s second largest controllable cost.” Adding to the allure of alternatives, the U.S. Department of Transportation announced that domestic airfares in the second quarter of 2008 reached their highest point in fifteen years. The high-and-rising prices have come as a result of increased fuel costs, fewer flights, and the prevalence of last-minute bookings. Not unexpectedly, a 2008 National Business Travel Association survey indicated that of the 230 companies surveyed, 56% would be cutting travel costs, 9% would institute temporary travel freezes, and 39% would reduce meetings.

The attractive public relations (and business) case for “going green” has also suppressed demand for corporate business travel. Businesses are starting to pay attention to the carbon-
based effect of their policies, and are cutting back on air travel as a way to address climate change.\textsuperscript{27} One of Australia’s largest utilities has implemented a number of policies – including its use of videoconferencing to replace face-to-face meetings where possible – aimed at reducing the organization’s massive carbon footprint.\textsuperscript{28} In 2007 alone, Telstra conducted just under 7,500 videoconferences and claims to have saved “approximately 4,200 tonnes of travel-related carbon emissions” as a result.\textsuperscript{29}

Face-to-face negotiations hurt the bottom line. It has always been expensive and troublesome to conduct business travel, but the dynamics of international travel are changing in ways that could act as a catalyst for real change. Companies desperate to cut travel-related costs but retain the benefits of face-to-face negotiation have traditionally been faced with a myriad of insufficient options. New advances in technology, such as telepresence, have finally given companies a true choice in the matter.

II. WHAT IS “TELEPRESENCE”?

Telepresence is a form of videoconferencing that uses advanced technology to integrate the sights and sounds of remote meeting participants into a local setting, such as a corporate boardroom. Telepresence systems feature high-definition cameras positioned to allow eye contact,\textsuperscript{30} sophisticated spatial audio systems that replicate the source and direction of sound, and between one and three large, high-definition televisions screens to transmit a “life-size” image of

\textsuperscript{27} AsiaTravelTips.com, \textit{supra} note 22.
\textsuperscript{29} \textit{Id}.
remote participants. The furniture and lighting of a telepresence meeting room may also be configured to match that of other telepresence rooms to further increase the sense of “immersion.” The system also strives to achieve “dial-tone” levels of dependability through stringent network requirements on latency, jitter, and packet loss. All aspects of a telepresence installation are geared towards removing or minimizing the characteristics of traditional videoconferencing that tended to highlight the differences between remote and local attendees.

A. Telepresence Benefits Derived From Replication of the Face-To-Face Experience

The biggest advantage held by telepresence over existing alternatives lies in the broad spectrum of nonverbal communications transmitted by its cameras and sound system. Negotiators are able to see how a remote participant responds to a demand, watch how a remote participant leans forward as he speaks, hear the rise and fall of the participant’s voice volume, and observe fleeting glances, looks of concern, or signs of agreement between the remote participants. Cues associated with the sense of smell, and messages communicated through changes in physical proximity may be the only forms of nonverbal communication neglected by a telepresence system. Otherwise, participants are exposed to the full spectrum of sights, sounds, and interactive elements as they would in a true face-to-face negotiation. Perhaps underlining telepresence’s fidelity to personal encounters, recent studies have shown telepresence

35 This comment focuses primarily on Cisco’s TelePresence system for these statements. Additionally, it is possible for remote participants to be located in different areas and therefore not as likely to engage in the kind of communication described in this paragraph.
collaborators to note no significant differences in their ability to communicate ideas and messages to physically proximate (in person) co-collaborators as compared to physically remote (via telepresence) co-collaborators.36 The technology represents the most true-to-life replication of face-to-face interaction to date.

Telepresence helps mitigate the toll that travel exacts on the productivity and physical well-being of employees, and allows both sides to potentially benefit from the comfort and confidence felt while operating on “home turf.” A 1993 study found that a negotiator may feel more in control of the negotiation if the meet occurs in familiar territory.37 A full 71% of respondents to that survey reported feeling a greater advantage if negotiations are held on “home turf”; 71% also reported feeling more comfortable and 66% reported feeling more confident when negotiating close to home.38 After installing a TelePresence system in his home and using the system to conduct meetings between corporate executives, Cisco Systems CEO Chris Chambers recommended TelePresence for “corporate and government leaders involved in complex disputes” because of its ability to “[allow] each to remain on their own ‘time-zone’.”39

The effects of “jet-lag”40 could have a serious impact on health, and may result in the traveling

37 Chu et al., supra note 17, at 10.
38 Id.
40 “Jet lag” refers to the myriad of symptoms travelers experience when crossing time-zones. Encarta Online Encyclopedia, Jet Lag, http://encarta.msn.com/encyclopedia_761582544/Jet_Lag.html (last visited on Nov. 30, 2008). Jet lag occurs when a person’s natural circadian rhythms for sleeping, eating, and activity are modified or interrupted by changes in time zones. Id. Symptoms include “daytime sleepiness; insomnia; disorientation; poor concentration; slower reflexes; indigestion, poor appetite, hunger pangs at unusual times; need to urinate or defecate more often at night; irritability, depression, mood swings (which may be caused by lack of sleep); and headaches.” Id. Interestingly, jet lag does not occur when traveling from north to south or vice versa. Id.
negotiator not being as well-rested or alert as his opposing counterparts.\textsuperscript{41} The World Bank studied its own business travelers and found that employees that frequently traveled filed substantially more physical and mental health-care claims than did non-travelers, and that such employees were exposed to increased fatigue, family disruptions, and stress.\textsuperscript{42}

The benefits of telepresence technology may be hard to quantify as they are both tangible and intangible. It is easier to quantify the potential savings for the business travel industry that spends up to $11 billion per year\textsuperscript{43} on travel-related expenses, but it is much more difficult to quantify the economic benefits of a negotiating force that is healthier and more confident.

\textbf{B. Telepresence Disadvantages Generally Associated With Cost}

While telepresence technology has a lot to offer the field of business negotiation, it does come with a series of drawbacks that must be acknowledged, including overall cost, market penetration, and the prevalence of incumbent alternatives.

Telepresence systems require a significant up-front investment, usually between $30,000 and $300,000, to create the meeting room, buy the equipment, and properly configure the system.\textsuperscript{44} One report indicated that it could also cost as much as $20,000 per month for on-site maintenance, operating system support, and IP network connectivity, but this report did not indicate how this cost might change relative to the size of the telepresence installation.\textsuperscript{45} While the high cost of a telepresence installation might only be accommodated by larger companies and government agencies (one analyst referred to it as a “Fortune 5000 play” \textsuperscript{46}), costs are expected

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\textsuperscript{41} \textit{Ira Asherman et al., The Negotiation Sourcebook} 299 (2nd ed. 2001).
\textsuperscript{43} Wolgemuth, \textit{supra} note 31, at 2.
\textsuperscript{44} Richard Thurston, The Problem With the Telepresence Picture, ZDNET.CO.UK, Mar. 17, 2008, http://resources.zdnet.co.uk/articles/features/0,1000002000,39365990,00.htm
\textsuperscript{45} Id.
\textsuperscript{46} Id.
\end{footnotesize}
to come down as more installations are sold in the coming years and the competition heats up between the handful of telepresence service providers.\textsuperscript{47} The monthly maintenance cost could also face downward pressure as high-dependency network bandwidth becomes more widely available.\textsuperscript{48}

Perhaps related to the high cost, telepresence suffers as a medium for negotiation because it is not ubiquitous like the phone or e-mail. Just over one year from its product’s launch, Cisco Systems had installed approximately 1000\textsuperscript{49} TelePresence sites with over 100 corporate customers worldwide, and it has been speculated that the number of installed systems could double by the end of 2008.\textsuperscript{50} The installed base of TelePresence systems is dwarfed by the market penetration of both the phone\textsuperscript{51} and e-mail\textsuperscript{52} – the twin titans of corporate negotiation media. Adding to the complexity of the problem, telepresence systems installed by different companies are often not interoperable\textsuperscript{53} and may not work well – or at all – with conventional videoconferencing facilities.\textsuperscript{54}

The up-front cost of telepresence technology may be too steep for most smaller businesses at this point, but there are a few firms working to bridge this gap. The Regus Group

\textsuperscript{47} \textit{Id.}
\textsuperscript{49} Cisco quickly expanded to over 250 internal TelePresence sites, perhaps due in large part to Cisco’s preeminence as a supplier of high-bandwidth network components and network management software. \textit{See generally Wolgemuth, supra} note 31. Greater adoption rates may be realized as the general quality of networks increases.
\textsuperscript{50} Wolgemuth, \textit{supra} note 31.
\textsuperscript{52} In 2008, the United States was also home to over 223 million Internet users as reported by the CIA World Fact Book. The CIA World Fact Book – United States, https://www.cia.gov/library/publications/the-world-factbook/geos/us.html (last visited on Nov. 30, 2008).
\textsuperscript{53} Ben-Zedeff, \textit{supra} note 48.
\textsuperscript{54} \textit{Id.}
plans to install up to fifty Cisco TelePresence systems at its rental office and rental conference room locations throughout the world.\textsuperscript{55} Cisco plans to construct TelePresence centers in major cities and rent out segments of time to those interested in the service, but wary of the installation cost.\textsuperscript{56} These measures may improve access of small and medium-sized businesses to the service, but it is unclear at this time whether such businesses will take advantage of the services as they are provided.

III. THE DRAWBACKS OF TRADITIONAL NEGOTIATION MEDIA

A. Telephones Transmit Less Than Half the Information Used to Interpret a Message

Aside from being widely available and quite cheap, telephone negotiations allow both parties to benefit from the transfer of information through vocal mannerisms, pauses, and topic selection.\textsuperscript{57} The paralinguistic cues of emphasis and intonation permit the exchange of emotion and tone, which can be difficult to convey with accuracy over e-mail.\textsuperscript{58} This additional information helps the listener resolve ambiguous statements.\textsuperscript{59} Compared to e-mail negotiations, phone negotiations invite a greater degree of pre-negotiation personal interaction between parties; one study of e-mail negotiations showed that as little as five minutes of “small talk” over the phone resulted in four times the number of successful negotiations when compared to a group

\textsuperscript{55} Wolgemuth, supra note 31.


\textsuperscript{57} Charles B. Craver, Effective Legal Negotiation and Settlement, 347 PRAC. L. INST./LIT. 81, 134 (1988).

\textsuperscript{58} Kruger et al., supra note 18, at 925.

\textsuperscript{59} Id. at 926.
of negotiators who engaged in e-mail negotiations without first engaging the opposing side over
the phone.\footnote{Janice Nadler, Legal Negotiation and Communication Technology: How Small Talk Can Facilitate E-mail Dealmaking 14 (NW. L. & ECON. Research Paper, No. 03-11), available at http://law.bepress.com/cgi/viewcontent.cgi?article=1033&context=nwwps (last visited on Nov. 30, 2008).}

Phone negotiations underperform face-to-face negotiations in a variety of ways. Most importantly, phone negotiations are deprived of the nonverbal information collected by observing the facial expressions, gestures, dress, posture and behavior of other speakers; such nonverbal information has been shown to account for up to 55% of the information processed by listener-observers.\footnote{Chu et al., supra note 17, at 4.} Speakers also suffer from what is called the “illusion of transparency,”\footnote{Eliezer Yudkowsky, Illusion of Transparency: Why No One Understands You, Overcoming Bias, Oct. 20, 2007, http://www.overcomingbias.com/2007/10/illusion-of-tra.html.} where a speaker may know what was intended by his words and similarly expect a listener to know as well – without the benefit of the contextual information known only by the speaker.\footnote{Id.} In a study where speakers communicated a potentially-ambiguous message (“The man was chasing a woman on a bicycle”) after viewing pictures to resolve the ambiguity (showing a man chasing after a cycling woman), speakers anticipated they would be properly understood in 72% of cases, when in reality, they were understood properly only 61% of the time.\footnote{Id.} The general consensus on phone negotiations is that they are more susceptible to breakdown because parties find it easier to reject proposals when not contending with the physical presence of the other party.\footnote{Lynn A. Epstein, Cyber E-Mail Negotiation Vs. Traditional Negotiation: Will Cyber Technology Supplant Traditional Means of Settling Litigation?, 36 TULSA L. J. 839, 840 (2001).}

B. E-mail is Dangerously Inadequate to Transmit Vital Nonverbal Cues
E-mail is now the “dominant mode of communication” for lawyers, but is considered to be the “lowest common denominator of the business negotiation experience.” Whatever benefits e-mail negotiators realize through the absence of scheduling conflicts and e-mail’s ability to communicate volumes of complex material are surely small in comparison to the amount of important nonverbal information lost by the nature of the medium itself. As one researcher put it, “[e]-mail is inherently a more impoverished communication medium than voice or face-to-face communication,” as it fails to accommodate tone, emphasis, or expression. The Kruger study referred to earlier showed senders of e-mail to be grossly overconfident in their ability to accurately communicate humor, sarcasm, emotion, and tone. And the “small talk” study confirmed the importance – and near necessity – of nonverbal cues to the successful resolution of a matter through negotiation. The researchers of this study went so far as entertaining the “possibility that e-mail compromises the quality of the agreements themselves.” Adding further that “the absence of social cues in e-mail communication can lead to unwarranted suspicion, blame, and ultimately, negotiation impasse.”

Attorneys and business professionals also risk revealing company secrets and client information by conducting negotiations using common e-mail or unprotected e-mail without the “security and encryption necessary to safeguard” such information. Once an e-mail message is sent, there are no feasible methods available to control the use of the information in the hands of

66 Nadler, supra note 60, at 4.
68 See Fatt, supra note 11.
69 Kruger et al., supra note 18, at 926.
70 Id. at 926-30.
71 Id. at 1.
72 Id. at 3.
73 Webb, supra note 67, at 375-76.
the recipient. Sensitive information in digital form can be easily duplicated and communicated to other interested parties, rivals, or clients. Given the dangers, few businesses likely rely on e-mail as the sole medium of negotiation with outside firms, leading many to explore – and subsequently reject – the potential of videoconferencing.

C. Videoconferencing Fails to Integrate Remote Participant, Leads to Discomfort

Videoconferencing was once thought to have a promising future as an alternative to face-to-face negotiations, especially in the wake of the terror attacks in 2001 that caused widespread disruptions to air travel and global economic woes. Since that time, however, videoconferencing has failed to take hold in the world of business negotiations for a variety of reasons that relate to the medium’s inability to provide a seamless replication of the face-to-face experience. Videoconferencing was often attempted over improperly-configured networks that were unable to reliably transmit high volumes of data without disconnections, slowdowns, and crippling audio delays. Traditional videoconferencing also failed to correctly replicate eye-contact between negotiators, as participants would naturally look away from the mounted cameras and toward the eyes of the person contained in the image; the lack of true eye-contact caused distrust to form between participants, in addition to heightened feelings of negativity and discomfort. Poor-quality audio transmissions also contributed to dissuade acceptance of the medium, as network delays would cause the audio to be out of time with the video, producing

75 Id.
76 Id.
77 Hugh Calkins, Videoconferencing: When Getting There Isn’t Half the Fun, Now’s the Time to Depose, Meet, and Confer On Camera, 17 ME. B. J. 6, 6 (2002).
“lip synch” errors. Studies have shown that “poor audio quality measurably increases the stress level of meeting participants.”

CONCLUSION

The rise of telepresence technology will not render phones and e-mail accounts useless, as no company is likely to rely on any one medium of communication for all aspects and stages of a negotiation. However, the powerful business and economic benefits of telepresence technology will drive widespread adoption of its use among corporations and governments alike, as it makes the luxury of face-to-face negotiation more affordable and predictable.

Lawyers and negotiators should have little difficulty embracing the telepresence medium as a great way to build relationships with opposing parties free from the inconveniences of travel and the strategic cross-cultural pitfalls of negotiating in foreign countries. The rising cost of travel and the uncertainty of the global financial crisis should also make telepresence appealing to corporate travel managers, entrepreneurs, and CEOs alike. While the high upfront costs may be prohibitive to smaller firms, fractional ownership and studio rental options are being made available in major cities around the world. Enabling smaller firms to become familiar with the service and its benefits could power a second wave of telepresence investment as the technology becomes more affordable and widely-used. Like Xerox and fax machines of the past, telepresence is likely to start as a valued tool of negotiation for the wealthier firms, and steadily gain market penetration with smaller and smaller firms as the price of telepresence declines.

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80 Id. at 3-4.
81 Id. at 3.